Clinical Lectures
ON THE
COMMON FORMS OF PARALYSIS FROM BRAIN DISEASE.

Delivered at University College Hospital,

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LECTURE IV.—PART II.

I NOW proceed to consider other variations in the hemiplegic state, which are also dependent partly upon the extent and partly upon the locality of the lesion.

Imperfect or abortive forms of hemiplegia are very frequently met with. The symptoms may stop short at various stages. And these attacks may be recovered from, or they may be the mere heralds of a not far distant complete attack. A patient feels giddy, for instance, finds himself either unable to speak at all for a few minutes, or else can only articulate badly, and at the same time his face may be "drawn" to one side, though he experiences no weakness in the arm or in the leg. I have seen two such cases lately, and when examined a few days afterwards these patients were found to have completely recovered their power of speaking distinctly. There was no appreciable weakness in the limbs of either side, though the angle of the mouth was distinctly lower on one side, and the tongue deviated as distinctly towards the same side when protruded. The eye, however, could be closed quite readily on the side of the face in which the partial paralysis existed.

In other instances we may find the usual hemiplegic paralysis of the face and tongue in association with a more or less complete paralysis of the upper extremity on the same side, whilst the leg wholly escapes. Not only can the patient move his lower extremity freely in all directions when lying down, but he is able to walk without any trace of lameness or dragging of the foot on the side affected. This latter test is the most important; for, as Dr. Hughlings Jackson has very properly insisted, a patient may show no weakness or inability to go through the various movements of the limb when lying down, and yet may display an obvious amount of lameness when he attempts to walk. With symptoms of this kind past experience teaches me that we have some right to expect a lesion of the surface of the opposite hemisphere, involving an area of convolutional grey matter and some amount of subjacent white substance either in the parietal or in the frontal region. This kind of lesion I have seen two or three times on post-mortem examination where the patient has died from some serious complications or intercurrent maladies; and in scrutinising the details of many cases of this sort recorded by different observers, I have found that such a lesion occurs very frequently.

Between this comparatively rare condition in which the leg escapes altogether, and the ordinary forms of hemiplegia in which it is at first completely paralysed, all gradations are met with in practice. But still more rarely we meet with an irregular form of hemiplegia, in which from the first the leg is more decidedly affected than the arm. We are able to recognise this anomaly at once, should the paralysis of the upper extremity be from the first incomplete; though in cases of complete paralysis of the hemiplegic type the existence of the disease in this irregular form may not reveal itself until the patient begins to recover from his paralysis. Then it is that we find the arm beginning to improve more rapidly than the leg—so that after a time the patient completely regains power in the upper extremity, though the leg, instead of improving, may only become more stiff and powerless. Trousseau passed a very gloomy verdict upon such cases. He thought that severe pains were apt to occur in the limbs of the paralysed side, that dementia was very prone to ensue, and that the patient often died within twelve months. He did not profess to give any explanation of these events, or of their connexion with one another, and unfortunately he did not tell us upon how many cases his opinion had been formed. I cannot help thinking, indeed, that there is no necessary association between dementia and this form of hemiplegia. I find six cases in which there was a tendency, more or less marked, for the arm to recover before the leg, out of about two hundred cases of hemiplegia of which I have notes. Five of these six cases were, after a time, lost sight of, but the sixth, which was a very well-marked instance of this irregular form of hemiplegia, was seen from time to time for two years. In brief, the particulars of the case are as follows:—A young man, twenty-one years of age, began to have "fits" three weeks before the onset of hemiplegia. He had about eighteen of them within this period, although they did not recur after he became paralysed on the left side. He lost his sight for about one month after this attack, and continued in a state of incomplete stupor with mental incoherence for about six weeks. The face was not notably paralysed, and the sensibility on the palsied side of the body was only very slightly impaired. About two months after the onset of the paralysis he began to regain power over the limbs, which up to this time had been completely powerless. The improvement commenced first in the arm, whilst the leg, after recovering to a very limited extent, soon ceased to improve any further. It is particularly recorded in my notes concerning this patient that he regained the use of his arm in the usual way—first being able to move it from the shoulder, then from the elbow, and afterwards regaining power over his hand and fingers. When I first saw him, eight months after the commencement of the paralysis, he could perform all ordinary movements with this left upper extremity, although the left leg could only be lifted so as to raise the heel about twelve inches from a couch, the left knee could only be slightly flexed, and the foot could not be moved at all. He had never suffered from any pains in either limb. Twelve months afterwards he was in much the same condition. The arm was then quite well and strong, but the leg was in nearly the same state as that described above. He walked with difficulty, keeping the left leg stiff, so that there were no movements of the knee or ankle-joint, and the foot was turned strongly inwards whilst it was being slung forwards in the usual way. He still made no complaint of pains in the limb, and there was no evidence of any mental weakness. Quite recently I have seen this patient again, after an interval of nearly four years. Still he does not complain of pains in arm or leg, and his mental condition is as bright as ever, although little change has taken place in the condition of the left leg. The arm has completely recovered; his grasp with the left (measured with a dynamometer) is as firm as that with the right hand, and he has no difficulty in executing the most delicate movements. He still walks in the same way, and has a difficulty in bringing the left heel to the ground. When lying on a couch this foot points downwards and inwards, and he can scarcely bend it at all, though he can now move the leg from the thigh well, and bend the knee with some strength. There is a slight diminution in the amount of reaction to faradisation in the muscles of the left thigh and leg as compared with those of the opposite side; the left calf looks decidedly smaller, and it measures half an inch less than the right in circumference. To a consideration of the significance of these facts I shall subsequently return, merely pointing out for the present that they are strikingly opposed to Trousseau's anticipations.

In another of my cases in which the arm first regained power, I find it noted that the several parts of this limb recovered in an order the reverse of that which is usual—namely, that power was first regained over the movements of the fingers and wrists, then over those of the elbow, and lastly over those of the shoulder-joint. I call your attention to these details because I believe Dr. Hughlings Jackson holds the opinion that this inverse order of recovery of power in the upper extremity obtains in all or in almost all the instances in which the arm recovers before the leg. This is a matter which requires further investigation. My own experience hitherto does not enable me to share this opinion. Moreover, in cases where there is no reversed order of recovery as regards the leg and the arm, I have occasionally found the several parts of the arm recover in

the inverse order already mentioned, without being able at all to explain the reason of this departure from the general rule.

I am strongly disposed to believe, however, that the cases in which the order of recovery, as between the arm and the leg, is reversed will be found to be divisible into two categories quite distinct from one another. First, we shall find cases in which the leg may be from the beginning more paralysed than the arm, and, therefore, later to manifest signs of returning power. And such a state of things I believe will be found to be most frequently associated with certain unilateral lesions of the pons Varolii or with pressure upon this part produced by lesions of the cerebellum. I say this because I think it may be almost laid down as a general rule that the extent and completeness of paralysis of the lower extremity as compared with the upper, other things being equal, tends to diminish as the lesion approaches the cortex of the cerebral hemispheres, whilst it tends to increase as the lesion approaches the medulla oblongata. The movements of the leg are more habitually automatic or sensori-motor than those of the arm, and therefore are most apt to be completely interfered with as the lesion approaches the pons, medulla, and cord. The movements of the arm and hand, on the contrary, are more habitually voluntary, and, therefore, take place more thoroughly under the instigation and superintendence of other parts of the brain, such as the cortical grey matter and the corpus striatum. It may happen, therefore, that a particular lesion in or pressure upon the pons Varolii causes a more complete paralysis of the leg than of the arm, simply because this lesion interferes with a greater proportional amount of cell and fibre structure naturally existing in this situation in connexion with leg muscles.

I do not, of course, wish you to understand that complete paralysis of the arm does not occur in lesions of the pons Varolii; or, indeed, that such lesions generally cause more complete paralysis of the leg than of the arm, although I do think that occasionally we get such a result where injuries exist in this situation more especially. I can refer to cases verified by post-mortem examinations in confirmation of this opinion, which is still further supported by the topographical separation of the strands of motor fibres pertaining to the arm and leg respectively in this situation, as ascertained by Brown-Séquard.

Many of the cases in which the leg appears to suffer more than the arm will, however, as I believe, be found to belong rather to our *second* category. This would include those cases in which the leg is not originally more paralysed than the arm, and in which recovery may even begin to take place in the usual way, though it soon ceases so far as the leg is concerned. These cases are, I suspect, just as frequent, to say the least, as those previously referred to; and they are not so much due to any peculiarity of the brain lesion as to certain *quasi* accidental extensions of "secondary" changes which the original lesion has set up in the spinal cord. To this subject, however, I shall have to return shortly.

In another irregular form of hemiplegia, which is rather rarely met with, we find the loss of sensibility altogether in excess of the loss of motor power. And these cases lead me to mention others met with perhaps rather more frequently, in which a unilateral "numbness" only is complained of, extending to the middle line of the trunk and face. It is not, however, simply a subjective feeling of numbness. I have ascertained in some of these cases that there is a positive diminution in tactile and other modes of sensibility—an incomplete condition of hemi-anæsthesia in fact. This state of things may persist for some time, though it is difficult to explain except upon the supposition of some very slight damage to one of the sensory centres for common sensibility in the pons Varolii.

Larger lesions in the central parts of the same brain region also produce various other irregular forms of paralysis, in which power may be lost either unequally or equally on both sides of the body. These forms of paralysis may be accompanied by much or little loss of sensibility; and they further differ amongst themselves by the variable though often characteristic nature of the paralysis of cranial nerves with which they may be associated. Simultaneous unequal paralysis of the two sides of the body is, moreover, caused not unfrequently by coexisting lesions in different or similar parts of opposite cerebral hemispheres; whilst in other cases a second attack of hemiplegia may supervene after a considerable interval, and, owing to the new lesion occurring in the previously sound hemisphere, a generalised paralysis is the result.

Different cases of hemiplegia vary much amongst themselves in respect to the amount of paralysis of the seventh, ninth, and other cranial nerves with which they may be associated. As a rule, in lesions of the corpus striatum, or of any parts of the hemisphere above this level, we meet only with that partial and temporary paralysis of the seventh and ninth nerves which I have already described. But as the cerebral lesion causing hemiplegia approaches closer to or actually invades the pons Varolii, so is the paralysis of the muscles supplied by these nerves apt to be both more complete and more lasting; whilst muscles under the influence of other cranial nerves also become simultaneously affected. The tongue often cannot be protruded at all for a time, and there may be difficulty of deglutition, with a more or less copious flow of saliva from the paralysed side of the mouth. The paralysis of the face, too, is much more marked; the angle of the mouth on this side is notably lower; the buccinator is quite powerless; and there is some obvious weakening of the orbicularis palpebrarum, so that the eye can only be partially closed on the paralysed side. In conjunction with such signs as these—that is, with the set taken as a whole,—there almost always exists a marked difficulty in articulation. This very striking group of signs may present itself with the paralysis of the face on the same side as the paralysis of the limbs, though at other times it occurs with the paralysis of the face on the opposite side; and in these latter cases the paralysis of the face attains its maximum. It is here almost as complete as if the nerve-trunk itself were injured, as in ordinary cases of facial palsy. This form of cross or "alternate" hemiplegia last alluded to was carefully investigated by Gubler, and is now generally recognised as being indicative of a lesion in the pons Varolii. But this is not enough; it is indicative of a lesion in the lower or posterior part of one lateral half of the pons, because in this place a single lesion may implicate the outgoing fibres of the facial (that is, its root-fibres) *after* their decussation in the pons, and also the channels for the conveyance of motor stimuli to the limbs above their place of decussation. A single lesion thus situated, therefore, suffices to paralyse the facial muscles on the same side and the limbs on the opposite side of the body.

But, should the lesion occur in the upper or anterior part of one lateral half of the pons, then the fibres of the facial and the motor channels for the limbs are alike implicated above their respective sites of decussation, and consequently the facial paralysis, though still very well marked, occurs on the side on which the limbs are paralysed. So that whilst alternate paralysis is indicative of a lesion in the pons Varolii, it by no means follows that the lesion is not situated in this region simply because we have to do with a paralysis of the face and of the limbs on the same side of the body.

Again, should the nucleus of the facial in the posterior or ventricular aspect of the pons be itself implicated on one side, then we find an alternate hemiplegia, with the additional sign of a paralysis of the external rectus muscle also on the side of the brain lesion; this association being due to the fact, made known by the researches of Lockhart Clarke, that the nerve which supplies this muscle—viz., the sixth—arises from a nucleus common to it and the portio dura of the seventh. In other lesions of the pons, the motor and sensory divisions of the fifth nerve may be more or less involved. On the other hand, the fourth nerve is very rarely implicated by such lesions of the pons Varolii as hæmorrhage or softening, though in some cases it may be pressed upon and paralysed.

The third nerve is, however, implicated in another form of "alternate" hemiplegia, where hæmorrhage or softening involves the lower part of the crus cerebri on one side. In the early part of the session many of you had an opportunity of watching a case of this kind. You will recollect that we had in the wards a woman who was hemiplegic on the left side, the face being implicated as well as the limbs, whilst on the right side there were distinct signs of paralysis of the third nerve represented by ptosis, dilatation of the pupil, and an outward deviation of the eyeball, with inability to move it inwards. These are the characteristic signs of a lesion in the right crus cerebri, and they were

doubtless thus occasioned in this particular case, although we had no opportunity of verifying the diagnosis. This patient is fortunately still alive, and somewhat better. You will thus see, from what I have already said, that attention to the particular combinations and degrees of paralysis of cranial nerves, both sensory and motor, in association with hemiplegic forms of paralysis, is of the highest importance, in enabling or assisting us to arrive at a regional diagnosis in cases of brain disease.

I will now call your attention, gentlemen, to the various forms of *rigidity* which may be met with in the paralysed limbs. This condition is seen not only more frequently but also to a more marked extent in the arm than in the leg. It was a sign much dwelt upon by the late Dr. Todd, and he very properly distinguished between two varieties of it whose pathology is altogether different. To the one variety he gave the name "early rigidity," and to the other variety that of "late rigidity." In some cases hemiplegia comes and goes without the appearance of either form of rigidity; the muscles continue flaccid, whilst power is gradually regained. In other instances, where complete recovery does not occur, there may have been no early rigidity, although a condition of this kind (late rigidity) is apt to manifest itself after the lapse of many months.

"Early rigidity" may be limited to one or two fingers, or it may be so slight as only to show itself when we proceed to move the limb. When the arm is bent, for instance, if we attempt to straighten it there is resistance on the part of the biceps. On other occasions if we try to flex the arm, the triceps responds, and partially resists our effort by some amount of contraction of its fibres. In other cases the rigidity may be very marked, the arm is drawn to the side of the chest, the elbow and wrist are firmly bent, and the fingers are flexed upon the palm. In the most marked cases any attempts to straighten the limb only seem to increase the spasm, and may cause pain as well as set up some amount of tremor or slight clonic spasms in the limbs of one or both sides; though at other times, as you may have seen in the case of an aphasic man lately in our wards, the spasm yields considerably under steady pressure, and this, moreover, produces no pain. Now, this kind of spasm may persist for weeks or months, with only slight variations from day to day. The muscles do not show any signs of wasting for a long time, and they respond to faradisation generally rather more readily than those of the healthy side. For one or two hours also after the extensors have been well faradised, the spasm may continue notably lessened. And we occasionally find with this form of rigidity that the spasm relaxes altogether during sleep, the muscles resuming their rigid condition during the act of awaking. When such a form of rigidity exists, moreover, the reflex excitability of the limbs, but more especially of the leg, is often decidedly increased. Tickling of the sole of the foot or contact with a hot spoon will then cause decided reflex movements. This early rigidity may show itself after some days, or even immediately after the commencement of the attack, and whilst the patient is still in a state of apoplectic or epileptiform stupor. When occurring thus early, the arm may be flexed and rigid either persistently or at times; or the rigid condition may alternate with one of clonic spasm. Sometimes, again, the arm may be rigid whilst the leg is affected with clonic spasms, and *vice versâ*. Early rigidity may affect the leg at the same time as the arm, and when it occurs we find the thigh drawn up and the knee firmly flexed so as to bring the heel close against the buttock. The arm, however, is much more frequently affected than the leg. As to the precise meaning of this "early rigidity" we know very little. It is said to be indicative of an "irritative" influence of the brain lesion, although it may occur with lesions of varying nature. It is doubtless in the majority of cases a grave symptom, and its appearance diminishes the chance of the patient's complete recovery. After a time, if the spasm does not relax, changes begin to take place in the muscles, tendons, and joints of the limb, which may ultimately leave it permanently contracted and useless. The lesion of the brain in these cases is often a large one, seriously implicating some extent of the cortical grey matter, and destroying a considerable area of subjacent white substance. Lesions in the optic thalamus also not unfrequently produce this kind of rigidity.

"Late rigidity" supervenes in some cases after many weeks or months, although previously all the muscles may have been in a flaccid condition. This form of rigidity is also, like the other, generally more marked in the arm than in the leg. It commences after the muscles have undergone some wasting. It may be limited to the flexors of the fingers, or it may extend to other muscles, so that in the most extreme cases the arm becomes immovably bent at the elbow, the wrist is firmly flexed, and the fingers are pressed against the palm of the hand—so forcibly, it may be, as to cause some amount of ulceration in this situation. Attempts to straighten the contracted parts produce much pain, and are usually ineffectual owing to the shortening which has taken place in the muscles and tendons. In the leg, a similar contraction of the hamstring muscles may exist with rigid tendons, and at the same time there may be more or less contraction of muscles about the ankle, and perhaps also some rigidity of these about the hip-joint. Dr. Todd thought that these signs, characteristic of "late rigidity," were brought about under the influence of the process of cicatrisation taking place at the seat of brain lesion. The contracting and indurating changes by which such a process of cicatrisation is distinguished were supposed to occasion an "irritation" of adjacent nerve-tissue, which thence became communicated to the paralysed muscles. As to the mode of conduction of this influence, or indeed as to the precise degree of causal connexion between the process of cicatrisation in and about a brain lesion, and the phenomena of late rigidity, there is much room for doubt. It is unquestionably true that where a limb remains permanently paralysed, certain nutritive changes are apt to be set up after a time in its nerves, its muscles, and its joints, though it is not always easy for us to decide whether these changes are directly occasioned by the brain lesion, or under the influence of those "secondary" changes in the spinal cord which are so often immediately occasioned by the brain lesion. The latter view, and strong evidence in favour of it, have been forthcoming during the last few years.

Clinical Lecture
ON
AMYLOID AND FATTY LIVER IN RELATION TO OPERATIONS.

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GENTLEMEN,—I have on several occasions pointed out to you certain cases of prolonged and severe suppuration produced by caries and necrosis or by disease of joints, and have shown to you that in several of these the liver has been plainly and palpably enlarged, sometimes to a very great extent. I will now give you shortly the details of two such instances, as a groundwork to the study of the forms of malady which produce this enlargement.

CASE 1.—Caroline L——, aged four years and a half, was admitted into Charing-cross Hospital on July 5th, 1870, under the care of Mr. Hancock, with hip disease. The case was severe, and, in spite of treatment, became worse; eight months after admission the child was greatly reduced by excessive discharge from large abscesses extending down the thigh. Mr. Hancock proceeded to excise the head of the femur, but during the operation that bone broke in two places; it was, in fact, a mere shell. The limb was placed on an interrupted splint; the bone reunited; the patient gained in flesh and strength, and left the hospital on June 4th, 1872, with still an open and discharging sinus on the outer side of the thigh, and another at the operation wound.

She was readmitted into the hospital on Sept. 4th, 1872, under my care. The left leg was very much wasted and shortened. Six open sinuses communicated, three with diseased bone at the upper part of the femur and acetabulum, and three lower in the thigh at the places of fracture. She was much wasted and anæmic; the skin of an opaque

yellowish hue; the pulse, very small, varied at different parts of the day and night from 98 to 130; appetite bad and capricious. The liver was much enlarged, extending through a considerable part of the right lumbar and a great portion of the umbilical region; it was smooth and hard. Urine healthy. No perceptible enlargement of the spleen. There was no evidence of tubercle in the lung.

Having watched this child with great care, I concluded that, in spite of the unfavourable condition, it was my duty to propose removal of the limb at the hip. Some time elapsed before consent could be obtained, but late in October it was given.

On Nov. 1st I examined her carefully. She was emaciated to a mere bag of bones, and was evidently weaker. The liver extended to a finger's breadth of the crest of the ilium, thence crossed hardly half an inch above the umbilicus, and disappeared under the left hypochondrium; it was hard, but smooth; its shape apparently not changed. No evidence of affection in any other organ.

On the 2nd November I amputated at the hip, and, owing to care in my arrangements and the skill of my assistants, barely an ounce of blood was lost. The child rallied rapidly; a few drawbacks occurred in the first fortnight, but after that her progress was uninterrupted and rapid. She left the hospital on Feb. 6th, 1873.

In April, 1874, I examined this patient, having seen her occasionally in the interval. She was, save for the loss of the left limb, a very healthy, strong-looking girl. The liver was examined both by myself and Dr. Pollock, and was found to be perfectly normal in size, and its functions duly performed.

Caroline T——, aged fourteen, was admitted on the 8th of April, 1873, into Charing-cross Hospital, under my care, suffering from a recurrence of inflammation after old hip disease. The child was greatly emaciated and anæmic; the left hip was much swollen, and around the joint was deeply-seated matter; also the inguinal region was swollen and fluctuated, showing the presence of pus within the pelvis. Several sinus mouths were situated around the trochanter and on the outer side of the thigh. She was treated for six weeks by rest and tonics, in the hope that such improved condition might benefit, but at the end of that time she was found to be weaker and thinner, while the abscesses, especially that within the pelvis, had become larger. She was then more fully examined. The probe was passed into three or four of the sinuses, and two of these were found to enter a cloaca and so pass to a necrosis situated deep in the head and neck of the femur. It was evident that unless this could be removed the child would die of exhaustion. At this time the liver was greatly enlarged; it extended downward and through two-thirds of the right lumbar region; in the middle line its edge was two fingers' breadth above the umbilicus; it was smooth and considerably indurated. The urine was nearly neutral, and contained phosphates, but neither albumen, sugar, nor any casts of the tubuli; there was no diarrhœa; no enlargement of the spleen could be detected.

July 21st.—She was placed on the operating table, and, chloroform being administered, it became evident that the hip was anchylosed (true anchylosis); but the central parts of the head of the bone being necrosed, and there being a large collection of matter within the pelvis, I nevertheless made a semilunar incision behind the trochanter, as for resection of the hip, sawed through the neck of the bone as close as possible to the pelvis, applied a trephine to the truncated head, and with it cut out the necrosis, perforated the acetabulum, and let out of the pelvis a large quantity of dark-coloured pus.

The child rallied from the operation with difficulty, but after the first few days went on very well, regaining appetite, and beginning to put on flesh, till two months after the operation, when a patient having undergone the operation for ruptured perineum was placed in the same ward. The considerable fetor arising from this case affected her markedly; the discharge, hitherto diminishing, increased; the appetite failed, and she began to lose flesh. Removal to another ward changed all these conditions, and she went on uninterruptedly well until the 6th of March, 1874, the date of her discharge. At this time the child was comparatively rosy and stout; the liver had very nearly gained its normal size, and its functions were duly performed.

Both these cases are operations somewhat remarkable, especially the latter (for I am not aware that any such has been performed or described); yet it is not to that part of the subject to which I would now direct your attention, but rather to the condition of the liver and other abdominal organs.

A patient who has suffered long from free suppuration, whatever be its origin, falls into a state of considerable cachexia: the body loses much of its fat; the skin becomes pale, of an opaque hue, often also dry, rough, and inelastic. In spite of the general emaciation, the abdomen, more especially of children, is generally tumid; percussion returns over the greater part of its surface a loud, hollow note. On passing, however, to the right side, this loud note will be dulled over a certain distance below the hypochondrium according to the extent of enlargement; occasionally, as was the case in the girl C. L——, this dulness, marking the extent of the liver, will reach as low as the crista ilii, or close to it. By using the mode of manual examination called "palpation" you will find the edge of the viscus, and feel its surface more or less distinctly according to the thickness of the abdominal walls. Observe that the surface of the gland is quite smooth, and the organ not altered in shape, save that its lower edge may appear rather rounder and thicker than usual; while again, in some cases, the organ seems firmer and harder, in others softer, than normal.

There is, then, in these cases a uniform increase in size, which does not affect by pressure or obstruction the portal circulation, since it is not accompanied by ascites; and though it may diminish, it does not annihilate the secreting function of the gland, since the fæces are coloured with bile, and since there is no jaundice.

This enlargement is due to the deposition in the constituents of the organ either of oil-globules (the fatty liver), or of a material called amylaceous (the amyloid or lardaceous liver). It is not my intention now to detain you with a minute description of the pathological anatomy of either of these states. I need only say that the latter consists in the gradual infiltration of the structure with a material which appears to consist of homogeneous molecules—apparently a low form of protein, which hardens, thickens, and whitens the organ, and in some cases no doubt destroys its function. The tissue thus affected is changed from its normal stage of high organisation into the lowest type of organic matter, which hardly possesses life or function, since it can scarcely undergo change—with difficulty even that last change of dead organism, putrefaction. Therefore, as you will see at once, change from this state back to healthy condition would seem barely possible, and indeed most writers on this subject consider the malady irrecoverable. On the other hand, fat, in the shape of oil-globules, is frequently present in the liver as a normal and temporary sequela of absorption from the intestine of oily ingesta. The accumulation of such substance in the cells of the gland to a morbid extent may be due to a variety of causes: it is common in phthisis and in heart disease, probably as a result of interference with the changes which the blood should undergo in the lung; it is also not unusual in wasting suppurative disease as of bones or joints. The tendency thereto is, I believe, increased, especially in children, by confinement to bed, combined with the high feeding which is usually employed in such cases. Since, then, in healthy life, fat is frequently present in, and as often removed from, the liver, it is plain that recovery from its morbid accumulation in that organ is a much more easy process, a far more likely event, than restoration to the norm of a liver infiltrated with so immobile a material as that which constitutes the amyloid deposit. Therefore we are often presented with certain problems which are at once of high importance and of extreme difficulty. The first concerns our power, or want of power, to discriminate during life between these two forms of liver enlargement in the cases we are considering; the second, our faith, or want of faith, in the power of nature to cure the secondary malady if it be amylaceous, when its exciting cause, the source of suppuration, has been removed.

Concerning the former problem, I can only say that our means of differential diagnosis are very imperfect, the greater hardness or softness of the liver being our chief guide; and I need not tell you that such a sensation conveyed through abdominal walls may be deceptive, especially if those walls be thick. But fatty liver does not reach the

size to which an amyloid organ may attain, as exemplified in the cases above given.

About the second problem much might be said if space allowed me to quote and to remark upon the views of many authorities. The whole balance of opinion is that amyloid disease, once commenced, is of necessity a progressive and fatal malady. With this conclusion, as far as the liver is concerned, I cannot agree; but it is impossible to prove absolutely such position, because if a person having an amyloid liver recover there occurs no opportunity of showing by chemical or microscopic examination the condition of the organ; and this is the position to which I am forced in regard to the above cases. The remarkable hardness and size of the organ, together with the condition of the patient's skin, &c., convinced me that the enlargement of the liver was in neither case due to fatty change; but I cannot prove it.

Although, then, it may in some cases be impossible to diagnose with certainty during life between these two forms of enlarged liver, we have, nevertheless, a certain and sure guide to practice. Since prolonged suppuration causes such enlargement, the liver is in every case to be carefully examined, as are also other organs, for the liver itself is not often attacked alone by the amyloid change. This organ may, as to size, be easily interrogated. Any considerable enlargement of the spleen may be detected without difficulty in young persons. Albumen in the urine is an early symptom of the amyloid kidney, and not unfrequently the peculiarly altered epithelium and sometimes casts may be found sufficiently characteristic to give the key to the form of Bright's disease whence the albuminuria arises. Amyloid intestines are in their earlier phases with difficulty made out. Obstinate, even recurrent, diarrhœa is a suspicious sign, and careful observation of the excreta may disclose cast off villi, even clumps of villi, with the characteristic hyaline appearance, and this even without any pus or sign of ulceration. If, after careful investigation on these points, the absence of any sign of amyloid disease save the enlargement of the liver be determined, any operation for the removal of suppuration is not only justifiable, but our imperative duty. Without operation the patient must die; after operation, however hard, large, and changed be the liver, there is a fair, indeed a considerable, chance of recovery, as the above cases sufficiently indicate.

SUDDEN DEATH FROM EMBOLISM OF THE PULMONARY ARTERIES:

PHLEBITIS OF THE LEG FOLLOWING A BLOW.

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MR. A——, aged forty-four, had never suffered from serious illness, except a severe attack of syphilis twenty years ago; but he had long been in the habit of drinking freely. On October 24th, 1873, he struck his left knee against the leg of a dining table, which caused him some pain. He went to business as usual until the 26th, when, the limb having become more painful, he sent for Mr. J. R. Lynch, of Notting-hill, his usual medical attendant. Mr. Lynch found no bruising of the limb, but a little swelling about the ankle. Movement, or pressure over the popliteal space, caused pain at the back of the knee. Rest and an evaporating lotion were recommended, but these directions were not carried out. Although lame, Mr. A—— persisted in going to the City daily, and the limb became more swollen. On the 2nd of November a slight attack of jaundice confined him to the house, but this passed away in about a week. He had no pain except in walking, and could bend his knee to a slight extent without discomfort. The leg, however, continued swollen; and at one time the calf measured nearly an inch more than its fellow. There was, however, no pitting nor pain on pressure. He walked down stairs daily, took his food as usual, and made no complaint whatever, except of hindrance from business. Becoming intolerant of the confinement, on Nov. 19th he went into the City, where he walked about, and called on several persons. On his return in the evening, whilst ascending the steps at the railway station, he suddenly became faint and unable to proceed. He was placed upon a chair, and was observed to gasp and struggle for breath, striking his chest frequently as if to remove some obstruction within. When he had somewhat recovered, a friend, who happened to pass, put him into a cab, and accompanied him home. He walked into his house with assistance, and, having taken some brandy, was helped to the watercloset and then upstairs to his bedroom, where he lay down upon the bed, and almost immediately expired. Those who were about him stated that he was perfectly conscious throughout, and did not complain of pain; but his face was very livid, and the difficulty of breathing extreme, as though there were a direct impediment to the entrance of air into the chest.

An autopsy was made on the 21st, about forty-eight hours after death, several medical men being present. The body was that of a remarkably fine, well-developed man. There was great hypostatic congestion of the dependent parts of the trunk and limbs. Much discoloration marked the course of the superficial veins, and decomposition was rapidly advancing. The left leg was swollen as high as the knee, but it did not pit under the finger. There was no bruising about the seat of injury. Much fat was deposited throughout the body. The blood was perfectly fluid, so that a large escape took place from the internal mammary veins when the sternum was removed. The heart was small and flaccid; it contained fluid blood, but no clot; the valves were normal. Both the lungs were congested, though crepitant throughout; the trunk and main divisions of the pulmonary artery were empty, but the branches which penetrate the lungs and their subdivisions, as far as they were traced, were completely plugged with dark black clot, which was dry and friable. The liver was large and congested, and its sharp anterior margin rounded and thick; on section it appeared natural. The kidneys were also much congested, with some little deposit in their cortical structure. The inferior vena cava and the iliac veins were largely distended with fluid blood. On tracing the left femoral vein, it was found to be filled with a firm dry clot from the profunda downwards. This clot extended throughout the popliteal and tibial veins, even into their small branches, completely filling them and adhering to their inner coat. The sheath of the femoral vessels was thickened and adherent to the vein, which felt like a hard cord to the finger. The arteries were patent. The internal saphena vein was free, and the external nearly so; the clots found in some of its branches did not completely block them. The fascia over the popliteal space was thickened and brawny from recent inflammation. There was slight extravasation of blood into the fat and areolar tissue around the peroneal nerve and biceps tendon. No blood escaped from the limb during examination, thus presenting a marked contrast with the other parts of the body, from which fluid blood dropped copiously. The head and brain were examined, but nothing abnormal was detected.

Remarks.—Apart from the interest which must always attach to cases of sudden death from embolism, this appears to present certain points which are worthy of consideration. The trifling injury which led to death; the absence of symptoms which could excite suspicion as to the very grave condition of the limb, as shown by dissection; the large extent to which the deep veins were involved without local discomfort or serious interference with health; the complete transference of the circulation from the deep to the superficial system of veins, and the capacity of the latter to carry on the entire venous circulation of the limb unaided, and without causing œdema—for the swelling of the leg was not due to serous effusion into the subcutaneous tissue, but to the distension of the deep veins with clot, and exudation into the muscles and their areolar investments.

The original injury had evidently caused rupture of some small vessels in the popliteal space, which, being followed by subacute phlebitis, led to the formation of coagula in the veins of the leg and thigh, and, finally, to their complete obstruction. The exertion of climbing the steep flight of stairs at the railway station detached a portion of the clot in the femoral vein, which, after passing through the larger trunks and the right cavities of the heart, was arrested at the branches of the pulmonary arteries just as they enter the lungs, and brought about the fatal

attack. It is difficult to believe that the whole of the coagulum found blocking the pulmonary vessels could have been carried there from the femoral vein, for had such thorough plugging of the arteries as post-mortem examination disclosed suddenly taken place, death must have ensued almost instantaneously. Probably only a small portion of clot was originally lodged at the bifurcations of the large pulmonary branches, which, by obstructing the circulation, and interrupting the heart's impulse upon the mass of blood within the lungs, caused stasis and ultimately coagulation in the vessels—a condition known to occur during life in other affections.

On thinking over the case, it appears to me that the intemperate habits of the man had so vitiated his condition of health as to prevent the usual curative processes taking place at the seat of injury, and must therefore be held primarily responsible for his unexpected death. It is well known that wounds, whether the result of accident or operation, are more often followed by erysipelas, or some other form of blood-poisoning, in those who are accustomed to take large quantities of liquor than in persons who are more abstemious. Whether this be due to the constant over-stimulation of, and consequent injury to, the nervous system, or to the morbid changes wrought in the viscera generally, or to some unhealthy condition of the blood itself induced by the large ingestion of alcohol, may be subject of dispute, but of the fact itself there is no doubt. In this case a most trivial accident was followed by phlebitis and blood-poisoning, and although the man recovered from his attack of jaundice, the phlebitis persisted and brought about such a series of changes in the limb that it is most improbable he could have recovered from them. Had not the embolus cut short the patient's life, I cannot but believe that he must soon have succumbed to the morbid changes which had evidently taken place in his blood at the time of death; for the autopsy disclosed precisely the same conditions that are so frequently met with in cases of blood-poisoning after injury—viz., clot rigidly limited to the veins in the neighbourhood of the wound, with general fluidity of the blood elsewhere, great congestion of the viscera, and rapid decomposition of the body. Had this man, who was apparently in a good state of health, been operated upon, or had he received an open wound from accident, there is strong presumption that he would have become the subject of pyæmia or of one of the blood diseases so closely allied to it; and he would have added another example to that most interesting series of cases brought before the Clinical Society by Mr. Prescott Hewett, in which patients who had not in any way been exposed to them died from diseases which by some are supposed to depend solely upon hospital influences, but which, I think, in not a few instances, have their origin in some organic vice existing *within* the patient rather than in some deleterious agent introduced from without.

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NOTES AND REMARKS
UPON A

CASE OF GRANULAR CONTRACTED KIDNEY (CIRRHOSIS OF KIDNEY),

IN A CHILD OF FIVE YEARS AND ELEVEN MONTHS.

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(*Concluded from p. 153.*)

THE hypertrophy of the left ventricle (which was in this case also accompanied by dilatation) is one of the most frequent concurrents of this condition of kidney, and its presence leads at once to the consideration of the vexed questions as to the essential nature of the disease and the real cause of its accompanying organic derangements.

Dickinson, from an analysis of 250 cases, gives 48 per cent. as the proportion of cardiac enlargement. Dr. W. Roberts, in his table (2nd edit., p. 406), finds it recorded in 125 out of 406 autopsies collated from various sources; and all writers upon the subject agree as to the frequency with which the two conditions are coexistent.

As to the cause of this condition of the left heart, opinions as yet differ; but the balance of authority would seem to be in favour of the old opinion of Bright, somewhat modified by the results of modern research. Bright says that "the most ready explanation appears to be that the quality of the blood is altered by kidney disease. The blood in consequence affects the minute and capillary circulation, so as to render greater action necessary to force it through the vascular system." Dr. George Johnson also explains this in a similar way. He alludes to the experiments of the late Professor John Reid upon asphyxiated cocks, showing how the contamination of the blood consequent upon deprivation of air leads to obstruction of capillary circulation. His words are: "In consequence of the degeneration of the kidney the blood is morbidly changed. It contains urinary excreta, and it is deficient in some of its own normal constituents. It is therefore more or less unsuited to nourish the tissues, more or less noxious to them. The minute arteries throughout the body resist the passage of this abnormal blood. The left ventricle therefore makes an increased effort to drive on the blood. The result of this antagonism of forces is that the muscular walls of the arteries and those of the left ventricle of the heart become simultaneously and in an equal degree hypertrophied." Dickinson also attributes it to the altered condition of the blood, and he says of Bright's theory, "There can be no doubt that this explanation is founded on sound principles." Traube,* however, attributes this to a different cause, and says that the contraction of the kidney, and consequent obstruction of its capillaries, causes a diminution of the quantity of blood passing from the arterial to the venous system, and less fluid is withdrawn from the arterial system for the formation of urine. The fulness of the arterial system is therefore increased, and the enlargement of the left ventricle is compensatory and forces a larger quantity of fluid through the kidney. Now it has been proved by Dickinson by actual experiment, "that, with granular degeneration the kidney could not, on an average, transmit one quarter as much water as passed through a healthy kidney under the same circumstances."† Niemeyer‡ says: "This theory (Traube's) is disputed by Bamberger and others, who reply that the hypertrophy develops in a stage of the disease when no obstruction of any importance to the circulation of the kidney exists. A more extensive collection of facts will be necessary to decide this disputed point; but, at all events, enormous hypertrophy of the heart sometimes occurs, even in the second stage of Bright's disease, and assuredly the circulatory disturbance of the kidney is not the sole cause of it." Sir Wm. Gull and Dr. Sutton, in their paper,§ offer another and a different explanation of the causation of this cardiac hypertrophy. They say that, inasmuch as in many cases of large white kidney (the sequel of acute tubal nephritis) the heart has been found free from hypertrophy (Wilks), and as Dickinson acknowledges that "simple hypertrophy of the left ventricle is rarely associated with any form of renal disease excepting granular degeneration," therefore "we must look for a third and more general morbid condition, antecedent to both the cardiac hypertrophy and the renal disease." They then quote Grainger Stewart, who in lardaceous disease of the kidney found the heart hypertrophied in only 4 per cent. of the cases, and state that of 17 cases of "large white kidney" under their own observation, post-mortem examination showed that "in 12 of them the heart was healthy," and in 4 cases of scrofulous pyelitis they "found the heart healthy." They also state that they have found "9 cases in which the kidneys were very contracted and the heart was free from hypertrophy." These cases they regard as proving that the obstruction to the circulation is due neither to the disease of the kidney causing a mechanical impediment to the passage of the blood through that organ, nor to the production of a state of blood which can *per se* cause delay in its passage through the capillary system; and after describing a certain change in the coats of the vessels, not of the kidney only but of the whole body, they say: "We attribute the hypertrophy to the vascular change." In a pamphlet‖ just published, Dr. A. L. Galabin holds, on the other hand, that hypertrophy of the left ventricle

* Ueber den Zusammenhang von Herz und Nierenkrankheiten, p. 68.
† Op. cit., p. 105.
‡ Vol. ii., p. 30; translated by Humphreys and Hackley.
§ Medico-Chirurgical Transactions, vol. lv.
‖ On the Connexion of Bright's Disease with Changes in the Vascular System.

"belongs especially to a granular kidney, but also in some degree to tubal nephritis of long standing; and this is a strong argument that it results from chronic Bright's disease as a disease of *the kidney*, and not as a common result of some third condition." The altered and thickened condition of the arteries in Bright's disease was pointed out long ago by Clendinning, and many others have noticed the concurrence of thick fibrous hypertrophied vessels with fibrous degeneration of other organs.* But it was reserved for Dr. George Johnson† to point out the widespread hypertrophy of the muscular coat of the small arteries in chronic Bright's disease, not in the kidney only, but in the skin, muscles, pia mater, and intestines. His explanation of its production has been already given in speaking of the cardiac hypertrophy; but of late this interpretation of the appearances seen in microscopic examination has been called in question, as in the before-mentioned paper by Sir Wm. Gull and Dr. Sutton. These gentlemen have made a series of investigations into the condition of the smaller arteries and capillaries in this disease, and their observations extend to the skin, the pia mater, the heart, lungs, spleen, stomach, and retina, in all of which they find a thickening of the minute arteries (arterioles) and capillary vessels; but they differ from other observers in their interpretation of the nature of the thickening, which Dr. Johnson ascribes to hypertrophy of the muscular coat, and Drs. Wilks and Dickinson seem to ascribe to atheromatous changes. They assert, on the contrary, that this thickening is due to the deposit of a "hyalin-fibroid" substance in the coats of these vessels; that the change occurs chiefly "outside the muscular layer, but also in the tunica intima of some arterioles"; that the degree in which the affected vessels are altered, and the extent to which the morbid change is diffused over the vascular system of different organs, vary much; and that the "muscular layer of the affected vessels is often atrophied in a variable degree." In explanation of this last statement they observe that the thickening of the walls of the vessels is not from an increased development of the muscular coat, but from a deposition outside that coat of the before-mentioned hyalin-fibroid substance, and accompanied in many cases by atrophy of the true muscular coat (see sketch of section of thickened arteries). This condition they propose to call "arterio-capillary fibrosis," and they say, "our inquiries show that these changes are, or may be, independent of renal disease, and that the renal change, in chronic Bright's disease, with contracted kidney when present, is but part of a general morbid condition." The cardiac hypertrophy they explain in the following words:—"The hyalin-fibroid material in the walls of the arterioles must be an impediment to elasticity, and it can be experimentally shown that greater force is required to propel a fluid continuously through a non-elastic than through an elastic tube. The left ventricle therefore, owing to this diminished elasticity of the arterial walls, has of necessity to contract with greater force to carry on the circulation."

These views were vigorously opposed by Dr. Geo. Johnson in a paper read at a meeting of the Medico-Chirurgical Society, held Dec. 10th, 1872, in which he maintained that the "hyalin-fibroid" appearance was "a post-mortem physical result of the distension of the fibrous tissue of the arteries, by the mixture of glycerine and camphor in which all the specimens had been mounted." And with regard to the theory of the causation of hypertrophy of the heart, he stated that, "in this explanation, the elasticity of the larger arteries, which acts in aid of the heart as a propelling force, is confounded with the muscularity of the smaller arteries, which antagonises the heart." And he attributed the hypertrophy to senile changes and to the emphysematous condition of the lungs in many of the cases mentioned by the before-named authors. Dr. Sutton having replied, showing that these appearances were visible in specimens mounted in salt and water, spirit and water, iodised serum, and albumen and water, Dr. Dickinson stated that the appearances described by Sir W. Gull and Dr. Sutton were, "in his opinion, undoubtedly the result of disease, and not of post-mortem action of any kind." This substance "was seen exceedingly well in vessels which had never been touched with glycerine, but had been hardened in chromic acid, and preserved in Canada balsam or some similar material," and the specimens which illustrate this case fully support this statement. He further observed "that the thickening involved both the adventitious and the muscular coat, and that the latter was both thickened and changed in structure, so that the change was not a simple hypertrophy. The muscular nuclei became attenuated or extinct, while the striæ, both circular and longitudinal, were exaggerated. The altered muscular coat was almost unaffected by carmine, while the healthy artery absorbed it abundantly. The thickened muscular coat was spotted sometimes closely with oil, and often gave evidence of calcareous change." After Dr. Bastian and many other speakers had borne testimony to the reality of the change described by Sir W. Gull and Dr. Sutton, Dr. Dickinson observed "that the hypertrophy of the heart was satisfactorily accounted for by the narrowing and obstruction of the diseased arteries." *

Dr. Galabin, in his recent thesis already quoted, notices these statements, and doubts the existence of any opposing contraction in the muscular coats of the smaller arteries; he acknowledges the thickened appearance of the smaller arteries, but denies that there is any reduction of calibre, and says that though a reduction of elasticity in the larger vessels might be a cause of hypertrophy, yet if it affected the capillary vessels only it could have no such effect. He notices the frequency of atheroma in these cases, and is inclined to look upon that disease, not simply as a degenerative change, but rather as a result of inflammation, and states that in the early stage, "there is an active proliferation of cells, such as occurs in inflammation. We have thus," he proceeds, "not a mere thickening or fibroid degeneration of arteries, but an arteritis, which may be comparable to the other inflammations common in the course of Bright's disease." He mentions 23 cases of atheroma of arteries, in which both the kidneys and the valves of the heart were healthy, and in which there was no other apparent cause for cardiac hypertrophy, and he finds the heart hypertrophied in 13, and its average weight to be 12½ oz., while in granular kidney the average weight of the heart was 15 oz., and he concludes from this that, though atheroma of the larger arteries may cause hypertrophy, yet it is "not sufficient to account for the whole of the effect produced in Bright's disease." In order to account for the whole of this change he believes we must go back to the opinion of Bright and Johnson as to the obstruction caused by the altered condition of the blood, and the consequent changes produced by the greater cardiac action required to keep up the circulation. He then proceeds to give the result of observations with the sphygmograph, the summary of which is briefly this: that in a healthy pulse, with a Mahomed's sphygmograph, and a pressure of 1½ oz. to 3 oz., the pulse tracing approaches very nearly to the ideal or true pulse-wave. In the case of rigid arteries from causes other than Bright's disease the pressure required is from 3 oz. to 4 oz., and the "tidal" or "first secondary wave" is large, but in cases of granular kidney a pressure of 4 oz. to 6 oz. is required, and the tidal wave is very large, in some cases even reaching higher than the primary or percussion wave, and similar conditions are found in acute nephritis. He then proceeds to say that "this increase in the tidal wave indicates a prolongation of the heart's contraction, such as results from atheromatous arteries or aortic obstruction. It is obvious that a similar effect would be produced if there were an impediment to the capillary circulation. Hence my interpretation of the tracings is that even in the early stage of acute nephritis such an impediment to the circulation may occur from *altered quality of the blood*, that the arterial pressure is increased, and the heart's contraction made more laborious. If this be true, it is easy to understand that this state of things, if continued long enough, will cause the muscular walls both of heart and arteries to hypertrophy."

The same author, also, makes some remarks upon renal dropsy, which seem to be worthy of notice. He points out that there are two mechanical conditions which would cause increased exosmosis—viz., increased pressure within the vessels, or diminished specific gravity of the contained fluid. The effect of increased pressure of blood within the vessels would be to cause effusion in dependent parts, and this is what occurs in cardiac dropsy; but if the effusion be the result of a diminished specific gravity of the contents of the vessels, then it would be equally diffused over the body, and would be most manifest where the tissues are loosest, and

* Wilks: Med.-Chir. Trans., vol. xlii.
† Brit. Med. Journ., April 16, 1870.

* THE LANCET, Dec. 21st, 1872.

this is the case in renal dropsy. That this should be caused by the drain of albumen is an old opinion; and the writer proceeds to quote Christison, who found the specific gravity of the serum in the early stages of Bright's disease to be 1020 to 1022, while that of healthy serum ranged between 1029 and 1031. But in the later stages (by which we must bear in mind Christison meant chronic cases, and therefore, probably, mostly cases of granular kidney) it was found to be normal. This deficiency of solids affected, not the albumen merely, but all the salts equally; and our author attributes these variations, in the case of tubular or acute nephritis, to a failure of the kidney so affected to excrete water, while in granular kidney or interstitial nephritis there is no defect in the excretion of water, and consequently no dropsy until late in the disease. But, on the other hand, there is retention of the solids, producing very gradually and slowly those changes before referred to in the structure, not only of the kidney, but of the heart, arteries, and other organs.

When we inquire into the probable causes of this condition of kidney, we find that many of those to which the origin of this disease is generally attributed are at once disproved by the mere age of the patient: thus intemperance, pregnancy, and senile changes are at once excluded (except with regard to the latter, so far as those changes are not necessarily and inevitably the results of old age). Valvular disease of the heart is disproved by post-mortem examinations; scarlatina or any form of acute desquamative nephritis by the history and the absence of dropsy. There was no trace of lead-poisoning in the gums, nor was any lead found in the water used in the house.

As to gout, Grainger Stewart says: "It" (granular kidney) "is more common in the gouty than in any other constitution; but it is met with in all forms of the arthritic diathesis, and in many cases is unsuspected until secondary diseases manifest themselves." So frequent is the coexistence of this condition of the kidney with gouty diathesis that it was called by Dr. Todd *par excellence* "the gouty kidney." There is no doubt, however, that granular contracted kidneys are frequently found where there is no trace of gout either in the symptoms or the history of the patient, none either present to our observation, or, so far as our knowledge can show, latent in the system, and therefore the term "gouty kidney" ought to be restricted to that variety of this condition described by Dr. Garrod ("Gout and Rheumatic Gout"), where deposits of urate of soda were found in streaks or spots in the fibrous tissue of the organ, and often visible to the naked eye. In all these cases described by Garrod (with one exception, and that a very doubtful one, being the first case he noticed, and in which a considerable quantity of uric acid was found in the blood, but the man was only seen a few days before death, and the fact was not ascertained) there had been previous attacks of gout.

The evidence seems to show that the "arthritic diathesis," though not a constant, is a frequent concomitant of this affection; and even where we have as yet had no external manifestation of the existence of this condition of the blood, it is quite possible that subtle changes of constitution in the nutritive fluids may have exerted their deleterious influence upon the structure of the kidney, as well as other organs and tissues, although as yet the peculiar deposits which form the pathological features, or the febrile exacerbations which are the diagnostic indications of these conditions, may not have made themselves manifest. Of the mode in which the poison of gout may act in causing this condition of the kidney, Dr. Todd remarks that it "may be easily produced by a tainted nutrition. The blood charged with the morbid matter of gout furnishes to the kidneys an unhealthy pabulum, which, while it undergoes changes analogous to those which occur in health, does so in an imperfect way, insufficient to maintain the nutrition of the healthy tissues of the gland."

The frequent connexion of lead-poisoning with the gouty (or arthritic) diathesis, and the frequent coexistence of contracted kidney in both conditions, first pointed out by Garrod,* has been amply corroborated since; and this leads to the consideration that in all the supposed primary causes —intemperance, gout, the arthritic diathesis, lead-poisoning, ague, old age, syphilis, struma, or tuberculosis—we find one common factor, a disturbance of the balance and healthy condition of the blood. Paget† quotes Treviranus‡ as follows: "Each single part of the body, in respect of its nutrition, stands to the whole body in the relation of an excreted substance." Not only, therefore, does the healthy structure take away what nourishes itself, but in so doing renders the remaining blood more suited to the nutrition of all the other structures. "The hair, for example, in its constant growth, serves not only local purposes, but for the advantage of the whole body, in that, as it grows, it removes from the blood the various constituents of its substance, which are thus excreted from the body";‡ and the same remarks will apply with even greater force to visceral organs and their various secretions. Further, he goes on to say: "The right state of the blood—a state not to be described merely as purity, but as one of exact adaptation to the peculiar structure and composition of the individual; an adaptation so exact that it may be disturbed by the imperfect nutrition of a single organ; and that for the maintenance of it, against all the disturbing forces of the outer life of the body, nothing can suffice except continual readjustment by the assimilative power of the blood itself." §

Now, this balance once destroyed, the very efforts of the blood to free itself from the noxious or superabundant constituents will, unless these be thrown entirely outside the body, tend to further change, and actually, by the growth of organisable substance so deposited, to further and permanent changes in the constitution of the blood itself; and in this way we must account for those subtle and all-pervading changes which characterise dyscratic diseases, and which cause their most formidable and remote results. And in this way it may be that changes in the constitution of the ancestors may affect the descendants, in probably a similar manner as regards the actual blood changes, though the consequent structural alterations may differ as to locality and consequent manifest symptoms.

To quote the same author again:—"In all these things, as in the phenomena of symmetrical disease, we have proofs of the surpassing precision of the formative process—a precision so exact that, as we may say, a mark once made upon a particle of blood or tissue is not for years effaced from its successors."‖ And I am myself inclined to look upon this case as owing its origin to congenital and inherited peculiarities of constitution. Thus the child inheriting a peculiar dyscratic condition of the blood, be that from arthritic or other predisposition, the normal relation between the blood and the capillary vessels is altered, its progress is retarded, organisable substances are effused, not in one only but in many organs—notably the spleen, liver, kidney, and coats of the bloodvessels. In the kidney, this structure produces the symptoms and appearances known as granular kidney, and by its interference with the true secreting power of that organ tends to a constant aggravation of its own condition, and a constantly increasing obstruction to the capillary circulation. This substance, also, is itself liable to be the seat of still further change, as by the deposit of urate of soda in gouty cases, of calcareous or fatty matter in atheroma; and thus we have the varying morbid appearances which have made the study of this disease a subject of such interest and difficulty.

In conclusion, I need scarcely point out how strongly this case tells against the theory prevalent upon the Continent, that granular kidney is the further stage of acute desquamative nephritis—a sequence, in short, of the large white kidney. Frerichs, who is the great supporter of this theory, "brings forward no case where, with a small contracted kidney, there has been a history of acute inflammation of the organ denoted by the ordinary symptoms of acute dropsy, and occurring in a healthy person."

Dr. Geo. Johnson says upon this point: "If all the contracted Bright's kidneys have passed through a previous state of enlargement, it is difficult to understand how it can happen that the majority of those patients who have reached the final stage of renal degeneration should escape the dropsy, which, in a greater or less degree, troubles nearly all those who die in what is assumed to be an earlier stage of the same disease." And Wilks¶ says: "The instance which Frerichs should have brought forward to show that his small kidney is but the second stage of the acutely

* Med.-Chir. Trans., vol. xxiv., 1854.

* Surgical Pathology, p. 17.
† Die Erscheinungen und Gesetze des organischen Lebens.
‡ Paget, op. cit. § Op. cit., p. 24.
‖ Op. cit., p. 40. ¶ Op. cit., p. 239.

inflamed, should be that of *a young person* in whom we may presume healthy organs exist, who has had an inflammation of the kidney, as evidenced by an acute dropsy, and who has died in the course of two or three years afterwards and a small contracted kidney has been found."

To all these points this case is a direct contradiction; yet it must be acknowledged that cases do occur in which the large white kidney of acute desquamative nephritis does undergo atrophic changes; and this, I think, is capable of explanation on the supposition that the previous alterations of structure have so interfered with the secretive power of the kidney as to leave the blood loaded with products which, as they cannot be cast out of the body, are deposited as organisable and contractile structure in this and other organs; producing, in fact, as a sequel, much the same condition as we suppose in this case to exist from the first.

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ON GASTROTOMY.

BY HENRY BARNES, M.D.,
PHYSICIAN TO THE CUMBERLAND INFIRMARY.

IN a paper on gastrotomy by Mr. Reoch, of Newcastle, published in THE LANCET of July 11th, 1874, a statement is made that "about fifty years ago a juggler in Carlisle swallowed a carving-knife with the handle downwards. One doctor proposed to give him large quantities of dilute acids, and another suggested to hold him head downwards, and extract the knife if possible by the point; and this is all that medical art could say or do to alleviate the patient's sufferings, for in a short time he died a miserable death." This statement contains several inaccuracies. The case was fully reported in the *Edinburgh Philosophical Journal*, and also in the *London Medical and Physical Journal*, vol. lii., p. 397, 1824, by my uncle, the late Dr. Barnes, of this city. The patient was a young man, aged twenty-eight years, and the knife which he swallowed was a bone-handled table-knife, nine inches long. Medical aid was immediately called to him, and attempts at extraction having failed, the dilute acid treatment was tried for two or three weeks, but discontinued on account of its increasing the pain in the stomach.

All the professional men in Carlisle were consulted respecting him, and various plans of treatment suggested, but no mention is made of the heroic plan of "holding the patient head downward and extracting the knife if possible by the point." The surgeons of the Carlisle Dispensary proposed—and their proposal is mentioned as having the recommendation and sanction of one of the first surgeons in Europe—that an incision should be made into the patient's stomach, and the knife extracted. They were unanimously agreed that nothing but an operation could save the patient's life, but he could not be persuaded to submit to it. He continued in Carlisle for some weeks, and left it for London, contrary to the advice of the professional gentlemen in attendance upon him. He died at Middlewich, in Cheshire, from inflammation and gangrene of the stomach, produced by the irritation of the knife.*

It may also be mentioned, that in order that nothing should be left undone which could afford the patient any chance of recovery, his case was submitted to Sir Astley Cooper, Mr. George Bell, of Edinburgh, and other distinguished surgeons. These references are sufficient to show that medical art was more advanced in Carlisle fifty years ago than Mr. Reoch tries to make out; and it is difficult to see what better plan of treatment could now be recommended than was suggested in this case.

In Dr. Barnes's paper reference is made to a similar well-authenticated case which occurred in Prussia in 1635, was reported by Dr. Daniel Beckher, of Dantzic, and published in Latin at Leyden in 1636. The patient was a young peasant, who, in endeavouring to excite sickness by irritating the fauces with the handle of a knife, lost hold of it, and it gradually descended into the stomach. Many physicians and surgeons of great celebrity were consulted respecting him, and at a meeting of the Faculty, held on the 25th June, it was decided that an incision should be made into the stomach, and the knife extracted. The operation was successfully performed on the 9th July, and by the 23rd the wound was quite healed. He was restored to the best of health, gradually returned to his usual diet and employment, and lived to become the father of a family. The knife was kept in a velvet bag in the King of Prussia's library at Koningsberg, where it was seen in 1685 by Dr. W. Oliver, who states that it measured six and a half inches long, English measure.

Six other successful cases of gastrotomy are on record. I will mention two or three. The first is published in the *Bulletin de la Faculté de Médecine de Paris*, No. 8, 1819. The patient, while attempting to excite vomiting, accidentally swallowed a silver fork eight and a half inches long, and after it had remained in the stomach several months, it was successfully removed by M. Cayroche, of Mendes. The wound healed in three weeks, and the patient afterwards regained the most perfect health. Another case is mentioned in the "Tablettes Universelles" for October, 1821, in which gastrotomy was successfully performed by M. Renaud upon a young man who had accidentally swallowed a silver fork. A third case will be found in the *Boston Journal*, vol. lxi., in which a bar of lead, 10¼ in. long, and weighing 9¼ oz., was removed from the stomach by Dr. Bell, of Iowa, and the patient recovered. In all these cases the operation was for the removal of a foreign body from the stomach. They are sufficient to show the feasibility of the operation, and, in my opinion, form a better justification of it than Mr. Reoch's experiments on animals, which yielded a mortality of 50 per cent. It may also be stated that there are fifteen cases recorded in which an artificial opening was made in the stomach for the relief of starvation caused by impassable stricture of œsophagus; but the operation seems to have been too long deferred.

Carlisle.

* A post-mortem was made, and the specimen is now in the museum of the Royal College of Surgeons, London.

TRANSMISSION THROUGH THREE GENERATIONS OF MICROPHTHALMOS, IRIDEREMIA, & NYSTAGMUS.

BY HERBERT PAGE, M.A., M.C. CANTAB.,
FORMERLY SURGEON TO THE CUMBERLAND INFIRMARY.

IN the spring of last year I had under observation in the Cumberland Infirmary a girl, Agnes T——, aged fifteen, who presented the following condition of her eyes:—On examination, there was seen to be almost total absence of the irides, smallness of the globes and cornea, and constant nystagmus. In the left eye there was some trace of iris throughout the whole circumference, more definite, however, in the lower than in the upper half. In the right eye the iris was absent in the upper half, and only just visible in the lower; and in this eye there was also some displacement of the lens, the lower margin of it being tilted forwards. Nystagmus was constant, the movements being in general rotatory, and only occasionally horizontal, the latter having the appearance of being caused by short, sharp tugs of the external recti muscles. The nystagmus was aggravated by speaking to the girl, who was extremely nervous. Ophthalmoscopic examination was very difficult, owing to the incessant movements, and I could catch only a casual glimpse of the fundus. As far as could be made out, the vessels were smaller than normal, and here and there were patches of atrophy of the choroid. The girl knew the letters, and spelled out with difficulty those of Jaeger No. 20.

The following members of her family have exactly the same deformity: *her mother, her eldest sister, and this sister's daughter.* I much wished to have examined these also, although the girl herself was so intelligent, and so clear as to the capabilities of sight of these relations, that her statement might be relied upon. Her mother had had children in this order:—1. *Daughter*, with defect; and mother of *daughter* with like defect. 2. Son, died of "water in the head." 3. Son. 4. Daughter. 5. The *daughter*, Agnes T——.

I have since made inquiries about the cases, and Dr. Fergus Armstrong, of Appleby, where the family lives, kindly tells me that the girl's story is correct, and that the condition described is even more marked in those members

of the family whom I have not seen. The mother's parents were healthy; one of her sisters had fits when two years old, and is now in an asylum. The hair is brown, but of different shades in each. None of the parents were relations.

Among recorded cases I am unable to find any in which such want of development has been carried through so many generations. Boehm, in his monograph "Der Nystagmus und dessen Heilung," mentions a case in which there was a *tendency* to albinism and consequent nystagmus in a family, gradually increasing in intensity from the mother, who "had beautiful blue eyes, a delicate white skin, and, what is especially characteristic of a tendency to albinism, colourless eyebrows and eyelashes"; through her daughter, with white eyebrows, eyelashes, and skin, and in whom "a great irritability to light already asserted itself"; to her granddaughter, with internal strabismus and nystagmus, and "whose hair was originally as white as well-bleached linen." Instances are named by various writers of nystagmus existing in several members of the same sex and generation of a family, occurring with malformations similar to those in my case, or with coloboma, congenital cataract, or anomaly of refraction. Boehm mentions a family in which six brothers had nystagmus: "each of them was born with apparently perfect eyes; but the trembling (*zittern*) became decided at the time when the children made the first attempt definitely to fix the eyes on a particular object." This last is an apparent exception to the general rule, that nystagmus is found associated with some deficiency in the construction of the eyes; but at the time these cases were under observation there was no ophthalmoscope, and some undiscovered abnormality may have been there.

In a monograph published in 1869—"Etude sur le Nystagmus"—Dr. A. E. Gadaud sums up the various theories of the cause of nystagmus. They are thus given:—"*a*. Nystagmus exists with an abnormal sensibility of the retina. *b*. It is produced by a want of education in the fixation of the eye. *c*. It is owing to disturbances of refraction. *d*. Nystagmus has a nervous cause. *e*. The cause is muscular, through insufficiency or rigidity of the tissues."

Does either of these views offer a satisfactory explanation of nystagmus?—or, on the other hand, is one more satisfactory yet evident? There is no record of brain examination in cases where there has been nystagmus with congenital deformity, and it is impossible to say whether there may not be some like discoverable condition, some arrest of development, some centric cause interfering with the equilibrium of the centre which controls and co-ordinates the movements of the eyeballs. Dr. Ferrier has been able to produce the various movements of nystagmus by application of the electrodes to different parts of the cerebellum; and in his paper in the West Riding Asylum Reports he speaks of nystagmus as an epileptiform affection of the oculo-motorial centres. For epilepsy and chorea, to which nystagmus is allied, we are led to seek a centric cause; and the outward and visible deformity associated with nystagmus points perhaps in the same direction to an inward abnormality, hitherto unlooked for and unknown, in the co-ordinating centre of ocular movements. And, as far as transmission goes, there seems to be no more reason against an hereditary abnormality of the cerebellum than against an hereditary abnormality of the eyes themselves.

Dr. Ferrier thus writes of the connexion between nystagmus, chorea, and epilepsy, and points out where we must look for an explanation of the globe oscillations:—"From the functions of the cerebellum as a co-ordinating centre for the muscles of the eyeballs, and what has been said on the subjects of epilepsy and chorea, it is not difficult to trace nystagmus to a similar condition of the cerebellar centres. It would be not unjustifiable to define the cause of nystagmus as a choreic or epileptic condition of the cerebellar oculo-motorial centres, concerned in the special movements of the eyeballs which are affected. What these are in the human cerebellum will have to be answered by comparative anatomy and further physiological experiments. The rolling of the eyeballs and distortion of the optic axes which form part of the fully-developed epileptic seizure are evidently the extension of the affection of the cerebral centres to those of the cerebellum. The conditions which lead to the state of the centres on which nystagmus depends, whether of centric or eccentric origin, or both, will have to receive further light from the investigations of ophthalmologists, and the relations of diseases of the cerebellum to diseases of the eye must form important subjects for future research."

A NEW FORCEPS FOR TEARING THROUGH OPAQUE CAPSULE.

BY CHARLES HIGGENS, F.R.C.S.,
ASSISTANT OPHTHALMIC SURGEON TO GUY'S HOSPITAL; SURGEON TO THE CENTRAL LONDON OPHTHALMIC HOSPITAL.

THE instrument depicted in the woodcut is made for the purpose of tearing through those dense opaque membranes not unfrequently met with occupying the pupillary area of an eye after cataract extraction, or more commonly when the lens matter has been removed by absorption following upon an injury or operation.

One of the figures shows the whole instrument; the other, representing only its lower extremity, is introduced expressly to show the arrangement of the teeth (*a*). These project from the lower surface of each branch vulsellum-like, and will seize and tear through anything, however tough and tensely stretched across the pupillary area, leaving a good clear opening where the densest membrane previously existed.

The branches of the instrument, together with its shank, are gilded as far as *c*, in order to make it plainly visible when introduced into the anterior chamber.

Any dragging operation upon opaque capsule, as is well known, is fraught with the greatest danger to the eye; nevertheless we are bound to make an attempt to restore vision in spite of risks. It is for cases that cannot be remedied by the use of needles or other means that these forceps are designed; and I venture to think they will be found to answer their purpose admirably.

The instrument is made by Messrs. Krohne and Sesemann, 8, Duke-street, Manchester-square.

Brook-street.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. BARTHOLOMEW'S HOSPITAL.

CARCINOMATOUS STRICTURE OF THE MIDDLE PORTION OF THE DESCENDING COLON; INCOMPLETE OBSTRUCTION; PERFORATION; PERITONITIS; DEATH.

(Under the care of Dr. REGINALD SOUTHEY.)

THE following case of malignant intestinal obstruction offers several features of interest.

Robert R——, aged forty-six, was admitted into Luke ward on October 20th, 1873. He was a porter, a strongly built man, of dark complexion; his hair was turning grey; his shanks and arms were thin; and he looked as if he had been losing flesh rapidly. His present illness, he said,

began about three months ago, when his bowels became constipated, so that he could seldom obtain an action of the bowels without resorting to some purgative; at the same time he habitually suffered from more or less pain in his abdomen. His family history was good, so far as he knew it, and his previous health had been unexceptionable, although he had an old easily-reducible inguinal hernia on the right side, for which he wore a truss. He had been able to work up to a week before his admission, but his strength had been failing; he had lost flesh considerably, and was now suffering more pain in his belly than he had ever before experienced.

On admission, his skin was moist and cool; temperature 98·7°; pulse 70, full; arteries somewhat tortuous; respiration 16, tranquil. Expression anxious; face somewhat drawn-looking. There was a depression deeper than natural at the lower extremity of the sternum, just over the xiphoid cartilage. His abdomen was large and full, and generally tympanitic. There was special bulging in the region of the ascending colon, very noticeable in the right flank. There was some tenderness on pressure in the right iliac and in the left lumbar region. Exposure of the abdomen to cold air and handling produced movements of the intestines, some gurgling, and considerable accession of pain. The umbilicus was always referred to by him as the chief seat of his pain. The superficial glands appeared rather enlarged. Feet very cold habitually. Tongue slightly furred. Appetite good; some thirst at night. Bowels acted last yesterday (Oct. 19th); action scanty, of small calibre, and passed with pain and with straining. He states that latterly his motions have not been much thicker than pipe-stems. An examination of the rectum was made by Mr. Hall, house-physician, and subsequently by Mr. Thos. Smith, who agreed that there was no constriction of the anus, and that the rectum was capacious and empty. Urine high-coloured and not very abundant; sp. gr. 1013; no albumen.

There had been no vomiting, and the bowels had acted twenty-four hours previously; but the violent tormina, full state of the abdomen, and apparent distension of the ascending colon, were all symptoms of grave import, and led to the diagnosis of some stricture of the transverse or descending colon, probably of cancerous nature.

The treatment adopted was, in the first place, a large but simple injection of warm water into the bowel. This was given while the patient was in a hot bath. He was further ordered to take a pill containing aloes and nux vomica at night, followed by two teaspoonfuls of castor oil in the morning. The bowels acted immediately after the injection, and were moved twice in the course of the night. The patient was in less pain, had had some sleep, and felt altogether easier on the morning of the 22nd. His appetite was fair; the tongue clean. The pill and oil to be repeated.

Oct. 23rd.—This morning, after much tenesmus, the bowels acted freely, and there was no blood mixed with the motion. The abdominal pains are still complained of.

24th.—Has had hardly any sleep owing to the pain, which is becoming more constant. At 6 P.M. yesterday an enema of tepid water with some laudanum was administered to him. A very little fæcal matter came away with it, and he suffered great agony for many hours afterwards. At 11 P.M. last night he took fifteen drops of the sedative solution of opium, but did not get any sleep till 4 o'clock this morning. At 7 A.M. he vomited some dark coffee-ground-looking fluid. His abdomen is more distended, especially in the right flank, where tympanitic resonance is heard on percussion. Skin moist; mouth dry; urine scanty, sp. gr. 1030, acid, high-coloured, containing bile pigment loaded with urates, no albumen. Mr. Smith, who saw him in consultation, thought that although an operation such as colotomy was contra-indicated by the history of the case and by the evidence of the fact that the obstruction was incomplete, advised and performed a puncture of the colon in the right flank with a very fine trocar. Little or no gas escaped however, but the patient felt relieved afterwards, and slept for two hours. At 8 P.M. last night he vomited again after taking some beef-tea. The only further treatment adopted was the subcutaneous injection of morphia for the relief of his pain when this became excessive.

25th.—Abdomen more distended and tympanitic, not tender; pains intermittent, but at times very severe.

26th.—Patient had a copious pultaceous stool early this morning, which afforded him the greatest relief. He slept afterwards, and was free from pain until 12 o'clock at night, when it returned with increased severity. The house-physician, who was called up, injected him with a third of a grain, and subsequently a sixth of a grain of morphia, but without affording any relief.

27th.—His face is paler, and his countenance shows great distress. The abdomen is less generally distended, but there is tension and tenderness in the right iliac region, and in the situation of the old hernia. A small solid motion was passed last night. He continues to take fluids well; his tongue is coated with a dry brown fur; urine more copious. Temperature 99·5°; pulse 112; respiration 48. During this afternoon he complained of feeling chilly.

28th.—Suffered great pain all night, but had no vomiting; expressed a desire to stool at 8 o'clock this morning, but just as the bed-pan was brought he fell back and expired.

An examination of the body was made by Dr. Gee twenty-eight hours after death. On opening the abdomen some few ounces of a turbid purulent fluid escaped. Exudation and reddening were seen upon the peritoneum. The large intestine was much distended. The colon was constricted in its descending portion just as it passes over the left kidney; the ascending and transverse portions were enormously dilated and filled with soft fæcal substance. Below the stricture the colon was small, and contained only a few hard fæcal masses. Upon removing the large intestine and opening it, the stricture was seen to be caused by an ulcer with fungoid-looking raised edges. The ulcer involved the whole of the inner circumference of the bowel, causing puckering, but not complete obstruction. About eight inches above the stricture the intestine was in a sloughy condition, fæces protruding through a hole about the size of a sixpence. Small intestines natural. Liver, kidneys, and spleen natural. Heart: rigor mortis of left ventricle great. Lungs: lower lobes much congested.

The case needs no comment; it tells its own tale. The ulcer was doubtless of a carcinomatous nature, and perforation must shortly have taken place if life had been prolonged. There were no secondary deposits. The question naturally arises—was not this a case in which colotomy, performed earlier, might have prolonged the patient's life and alleviated his sufferings? There were no objections to the operation, nor were any unusual difficulties to have been apprehended in its performance. The colon bulged in the right flank sufficiently; why, then, was the operation not performed? Because the evidence afforded by the action of the bowels proved the obstruction to be incomplete, and it was considered that it was not justifiable to advise the formation of an artificial outlet for the contents of the intestines when the natural passage was known to be still pervious. In the event, however, of a similar case coming under his care, Dr. Southey would urgently advise that the operation of colotomy should not be delayed when the symptoms of obstruction—such as distension, pain, and violent peristaltic action — persist, although some fæcal matter should find its way through the strictured intestine. There is no rule in practice so rigid that occasional departures from it are not justifiable.

LONDON HOSPITAL.

A CASE OF COMPOUND DISLOCATION OF THE ELBOW-JOINT; RUPTURE OF THE BRACHIAL ARTERY; RECOVERY.

(Under the care of Mr. M'CARTHY.)

IT is not our wish or intention to discuss the accuracy of the statements of those who insist on the exclusive adoption of antiseptic methods in the treatment of cases of compound dislocation; but we cannot disregard the fact that such results as attended the subjoined case, though not of common occurrence, are not rare. The experience of many large hospitals which still adhere to the older methods of treating wounds will be found to furnish ample proof of the success of simple treatment. In the following case no precautions were taken to purify the air surrounding the patient or to prevent its access to the wound. The dislocation was reduced and simple water dressing applied,

and yet the progress of the case was uninterruptedly good. If antiseptic treatment had been adopted, the success of the case would have been fallaciously attributed to the influence of the special mode of treatment.

For the notes of the case we are indebted to the dresser, Mr. Sincock.

A. B——, aged eighteen, was admitted on October 18th, 1873, with a compound dislocation at the right elbow-joint. When getting off the box-seat of an omnibus the horses started, and he fell, his arm getting entangled in the ironwork of the seat. The articular surface of the lower end of the humerus protruded through a lacerated wound at the anterior and inner part of the forearm. The dislocation was reduced by Mr. Sargeant, the house-surgeon, who, on discovering that the brachial artery had been torn across, sent for Mr. M'Carthy. The upper end of the artery could be distinctly seen pulsating at the bottom of the wound, the sheath of artery being tightly twisted and terminating in a fine point. The lower end of the vessel was not visible. There was no bleeding. There was, of course, no pulse at the wrist; but the hand and forearm were warm, and sensation was perfect. Under these circumstances, and as the lad was healthy, Mr. M'Carthy considered that there was no immediate occasion for amputation; and that as the main vessel had been ruptured, excision of the joint might endanger the secondary circulation. He decided, therefore, to postpone any operative interference, and to be guided by the progress of the case. Water-dressing was applied, and the arm slightly flexed and supported by a pillow, the hand and forearm having been wrapped in cotton-wool. The progress of the case was uninterruptedly good; and at the end of eight weeks the lad was sent to the country with the wound healed, and his elbow-joint anchylosed at an angle of about 100°. A month later he returned to show himself. He had a good, useful arm, the arteries at the back of the elbow were considerably enlarged, and the only evidence of the interruption of the circulation was the condition of the nails of the right hand, which were each detached from the matrix.

THE HOSPITAL FOR WOMEN.

CASES OF OVARIOTOMY.

THE following report is continued from page 118:—

CASE 18. *Ovarian cyst; ovariotomy; recovery.*—C. E——, aged forty-six, single, was admitted November 28th, 1873, under the care of Dr. Heywood Smith. She first attended as out-patient August 4th, 1873. Catamenia began at the age of seventeen, and ceased two years ago. Ever since the cessation of the catamenia she has had pain in right inguinal region, and soon afterwards noticed a swelling, which has gradually increased, but not very much lately. Two years ago she overreached herself, and felt something snap, giving her great pain.

The umbilical girth on August 4th was 33½ in.; on Nov. 30th 37 in. The abdomen was occupied by a tumour reaching to the ensiform cartilage, which was dull on percussion, elastic, indistinctly fluctuating at some points, solid at others. Flanks resonant, especially the left. In the left iliac fossa was felt a hard, somewhat tender mass. By vaginal examination the uterus was found thrust forwards, and the cervix pushed up against posterior surface of os pubis. The uterus was fairly movable. Uterine sound passed 2¾ in. towards left. Hymen present. Urine dark-amber colour; sp. gr. 1020; no albumen.

Dec. 6th.—Dr. Heywood Smith performed ovariotomy. On the peritoneum being opened the cyst was exposed; a trocar was introduced, and a large quantity of muddy, greenish-brown, gelatinous fluid drawn off. The cyst was then gradually drawn out, there being no adhesion, and the pedicle, which was short and thick, secured with Spencer Wells's clamp. The wound was closed with carbolised silk sutures, and dressed with lint dipped in carbolised oil.

For two days the patient had considerable sickness and pain, but afterwards progressed favourably. For ten days the pulse was very irregular and intermittent.

15th.—A small abscess was opened that had formed in the track of one of the upper sutures.

26th.—Discharged cured, twenty days after the operation.

The temperature, except on the evening of the day of the operation, when it was 100·4° F., never rose above 100° F. It was normal on Dec. 9th, and remained so.

CASE 19. *Ovarian cyst; ovariotomy; death.*—L. S——, aged fifty-two, single, charwoman, was admitted Dec. 12th, 1873, under Dr. Heywood Smith. Catamenia began at sixteen and ceased at forty-eight; regular. First seen as out-patient Dec. 1st, 1873, when she complained of pain in the abdomen, especially on the right side, which began seven weeks ago. Abdomen noticed to be swollen for one month. Her mother died of cancer of breast at the age of eighty. The cancer was "hard" for three years, "bleeding" for one year. The patient is an only child. Abdomen increased more rapidly lately; worked hard till a week ago; appetite bad; bowels confined; urine clear, no albumen. The abdomen is much distended (girth at umbilicus 30½ in.); the swelling rises to the umbilicus, is dull everywhere, soft and fluctuating on left side, solid on right side, where there is much tenderness. Vaginal examination: Vagina small, uterus small, lying to left and posterior aspect of pelvis, and scarcely movable; uterine sound cannot be passed for pain more than three-quarters of an inch.

The operation was performed on Dec. 13th. On opening the abdomen, the cyst-wall was found intimately adherent to the peritoneum in all directions; on separating the adhesions, they bled freely, and the cyst-wall giving way, a quantity of thick, gruel-like fluid escaped into the cavity of the peritoneum. Four pints of the same fluid were then drawn off with a trocar, the cyst drawn out of the abdomen, some adherent bowel detached from its posterior aspect, and some strong adhesions in the pelvis broken down. The pedicle, from the right ovary, was rather short and about the thickness of three fingers. A clamp (Spencer Wells's) was applied, and the abdomen well cleansed from the cyst contents and blood. On withdrawing the tumour, it was found that a portion of peritoneum was so adherent to it that it was detached from the abdominal wall; this was drawn out at the lower edge of the wound and secured with catgut. The wound was brought together with carbolised silk sutures, and dressed with dry lint; the pedicle was dressed with lint soaked in solution of perchloride of iron; strapping and bandage placed over all. The cyst was multilocular, and weighed 4 lb. 1 oz. Temperature before operation 99·2°; pulse 96.—2.30 P.M.: Pain severe. Fifteen minims of tincture of opium were administered per rectum. Pulse good strength; severe thirst all the afternoon, lessened by soda-water and milk. Temperature at night 100·2°; pulse 88.

Dec. 14th.—1.35 A.M.: Rather restless. Breathing laboured. In less pain.—10.30 A.M.: Abdomen distended; not tender. Pain in right leg only. Countenance anxious. Ordered injections, every three hours, of beef-tea, brandy, and opium.—11.45 A.M.: Pulse weak and small. Distension of abdomen increased.—2 P.M.: Has become rapidly worse; cannot retain enemata.—2.30: Died.

Necropsy, twenty-four hours and a half after death.—Abdomen greatly distended and resonant. Intestines generally adherent to each other and to the abdominal wall by plastic lymph. Half a pint of reddish fluid found in pelvis. The portion of abdominal wall (below the recti) denuded of peritoneum was specially adherent. Some drops of purulent matter scattered over the parietal peritoneum. Wound partially united. Uterus small; cervix larger than body.

In this case the temperature never rose above 100·4° F. Three-quarters of an hour before death it was 100·2°; pulse 127. The patient was a bad subject for the operation. She was weak, emaciated, and hard-worked; and the temperature before the operation was above normal (99·2° F.), due doubtless to a low form of inflammation. The operation was undertaken as giving her the only chance of being able to work for her living.

WILTS COUNTY LUNATIC ASYLUM.

CARIES OF THE ATLAS AND AXIS; HEMIPLEGIA; DEATH.

THE following case, taken in conjunction with that reported from St. Thomas's Hospital (p. 48), illustrates the equivocal character of many of the early symptoms of disease of the atlo-axial articulation. The pain, the stiffness, and the difficulty of movement may each and all be the result of a simple rheumatic affection of the muscles of the neck, and a positive diagnosis can often be made only

when the disease is far advanced and the injury is wellnigh irreparable. Here, as in all other matters, it is easy to be wise after the event, to be certain of the nature of a lesion when the pathological specimen is before us, and to be correct in diagnosis when the patient is dead and the symptoms are regarded by the light afforded by the post-mortem examination. But the clinical surgeon has sometimes a difficult and delicate task to perform when called upon to decide between ordinary stiff neck and disease of the atlo-axial articulation.

For the following notes we are indebted to Mr. J. Masterton, M.B., assistant medical officer:—

W. W——, aged twenty-eight, a male congenital imbecile, was admitted June 27th, 1872. Between the date of his admission and his fatal illness the following symptoms may be noted as bearing more or less on the lesion discovered after death. For six or seven months previous to his decease it was often observed that the patient carried his neck in a rather stiff and constrained manner. It was not, however, until about three months before his death that he openly complained of pain in the back of the head and stiffness of the neck, and he was consequently at that time allowed to remain in bed for a day or two. Being usually employed on the farm, it was thought that the patient had caught cold, and had an ordinary stiff neck. In the course of a day or two, however, he got up and resumed his usual employment, being desirous of doing so, and feeling considerably improved, though the stiffness of the neck had not disappeared, for it was observed by the attendant in charge of the ward that he was very careful in stooping, and always avoided bending the neck or rotating the head. He continued in this condition, working on the farm, until June 18th last, when he had to give up work on account of the return in an aggravated form of the stiffness in the neck and of the pain in the back of the head. He now complained, in addition, of difficulty of swallowing and a sore-throat, which was accompanied by very considerable constitutional disturbance. He was ordered to bed, and an attempt was made to examine his throat, but this was found impracticable on account of the stupidity of the patient. Under the circumstances the case was considered one of acute tonsillitis, and the patient was treated accordingly. On June 23rd the febrile symptoms had somewhat abated, but the stiffness of the neck, the pain, and the difficulty of swallowing remained. On the morning of June 24th patient was observed to have well-marked hemiplegia, affecting the whole of the right side of the body, and which might have come on suddenly during the night. He was quite unable to lift either the arm or the leg on the right side, and he complained of numbness of both these extremities. His mental condition remained unchanged, and there were apparently no other symptoms of cerebral origin. On June 25th the hemiplegia continued much the same, and the spinal cord had evidently become implicated, as the patient had not passed water during the night, and the bladder was found full of urine. From this time up to his death catheterisation had to be performed twice daily, and it was only after repeated doses of aperient medicine that the bowels were got to act on one or two occasions. Pulse was 140, and patient complained of great thirst. A bed-sore now began to form on the right buttock. The symptoms intensified, and the paralysis gradually became complete, the left side of the body being latterly affected as well as the right. Patient died at thirty-five minutes past 5 P.M. on June 26th, having remained conscious and in his usual mental condition up till within the two or three hours preceding his death, during which time he was in a state of coma.

Autopsy, forty-seven hours after death (temperature of room 65° Fahr.).—On removing the brain it was found that the medulla oblongata, the pons Varolii, and part of the inferior surface of the cerebellum were soft and pulpy, being more or less completely disorganised. At the top of the spinal canal and about the pons Varolii and medulla oblongata there was found a considerable quantity of creamy pus, and the odontoid process of the axis was observed to project upwards through the foramen magnum. On a closer examination, the odontoid process was found to be rough and carious, and on removing the atlas and axis, which was done as carefully as possible and with some difficulty, it was ascertained that the whole atlo-axoidean joint was disorganised, ruptured, and affected with caries. There was no discoloration of the softened and disorganised portions of the brain, nor could any clot or traces of clot be discovered on careful section of the cerebrum. The further notes of the condition of the brain and the other organs of the body need not be given on account of their having no bearing on the manner or form of death.

Remarks.—It is presumed that in this case the dislocation of the odontoid process was a post-mortem occurrence, inasmuch as the symptoms *gradually* intensified, and the death was not sudden. The symptoms, as above described, would seem to indicate the following sequence of events:—Caries of the atlo-axoidean joint and the formation of an abscess therein, the sudden rupture of which gave rise, no doubt, to that pressure on the pons Varolii and peduncle of the brain which caused the hemiplegia of the right side of the body, whilst the gradual diffusion of the pus along the spinal canal, and, ultimately, around the pons Varolii and other cerebral peduncle, would naturally account for the symptoms subsequently observed and noted in this case. Had the patient been restless or an epileptic it is easy to conceive that a rapidly fatal issue from dislocation of the odontoid process during life might readily, and would most likely, have been brought about.

Reviews and Notices of Books.

Responsibility in Mental Disease. By HENRY MAUDSLEY, M.D. London: Henry S. King and Co. 1874.

THE well-known *International Scientific Series* published by Messrs. King and Co.—a series which is adorned by such works as that of Prof. Tyndall "On the Forms of Water," and of Herbert Spencer "On the Study of Sociology"—has lately been enriched by the volume which is the subject of this notice. The scientific series is well known to, and highly appreciated by, the reading and thoughtful public, and we sincerely hope that Dr. Maudsley's work will be found alongside of its fellows on the shelves of many a library which is devoted, not exclusively to medical, but to general literature. Dr. Maudsley's book is not meant to "popularise" the subject of which it treats in the bad sense which not unfrequently attaches itself to that expression, but it is intended to bring under the notice of the more thoughtful and more educated some of those facts concerning insanity on which there has been, and still is, unaccountable ignorance even in high places. The introductory chapter is full of interesting matter, and many a reader will no doubt be not a little surprised when he learns how strong is the resemblance in habitual conduct and demeanour between many of the inhabitants of lunatic asylums and those who remain outside and are by courtesy called sane. Dr. Maudsley is at no little pains to show that, although in recent times the term "insanity" has been, as it were, widened in its scope, this widening is not due so much to any change in the recognised forms of disease as to an increased knowledge of psychology—an increase which has come about principally by the sweeping away of those cobwebs of superstition which, in the dark ages, were, as it were, deposited upon the framework of the science.

"What place," he asks, "could a rational theory of insanity have in such an atmosphere of thought and feeling? The conception of it as a disease was impossible; it was ascribed to a supernatural operation—divine or diabolical as the case might be. . . . If the cravings of the person took a religious turn, and his life was a fanatical practice of some extraordinary penance—if, like St. Macarius, he slept for months together in a marsh, exposing his naked body to the stings of venomous flies; or, like St. Simeon Stylites, he spent the greater part of his life on a pillar sixty feet high; or, like St. Anthony the patriarch of monasticism, he had never, in extreme old age, been guilty of washing his feet—he was thought to have reached the

ideal of human excellence, and was canonised as a saint; more often his state was deemed to be a possession by the devil or other evil spirit, or the degrading effect of a soul enslaved by sin; from some cause or other he was a just victim of divine displeasure, and had been cast down in consequence from his high human estate."

Dr. Maudsley next turns to modern views, and shows that mind is merely the function of the brain, an organ which is as liable to disease as any other organ of our bodies; and although diseases of the brain give rise to symptoms which are more complex and more difficult of comprehension than the symptoms referable to diseases of other organs, yet, nevertheless, there is no good reason to doubt that every symptom is accompanied by definite anatomical morbid processes, which possibly may be ere long more easily brought within the grasp of our senses than is the case to-day. The hereditary nature of many neuroses is insisted on, and the important part which education plays in the development of the nervous system is fully pointed out. Habitual crime is placed among the neuroses—among the diseases, that is, which come to us by inheritance, and which are fostered by the want of education or by mal-education.

"It is certain that lunatics and criminals are as much manufactured articles as are steam-engines and calico-printing machines, only the processes of the organic manufactory are so complex that we are unable to follow them. They are neither accidents nor anomalies in the universe, but come by law and testify to causality; and it is the business of science to find out what the causes are and by what laws they work. There is nothing accidental, nothing supernatural, in the impulse to do right or in the impulse to do wrong; both come by inheritance or by education: and science can no more rest content with the explanation which attributes one to the grace of Heaven and the other to the malice of the devil, than it could rest content with the explanation of insanity as a possession by the devil."

With regard to the influence of education, the author is careful to point out that its power, though great, is strictly limited.

"So much in human development being due to education, it is evident that the training which a person undergoes must have a great influence on the growth of his intellect and the formation of his character. What he shall be and what he shall do will be determined in great measure by what has been done to bring into full activity the capabilities of his nature. But great as is the power of education, it is yet a sternly limited power; it is limited by the capacity of the individual nature, and can only work within this larger or smaller circle of necessity. No training in the world will avail to elicit grapes from thorns or figs from thistles; in like manner no mortal can transcend his nature; and it will ever be impossible to raise a stable superstructure of intellect and character on bad natural foundations."

The second chapter is devoted to a discussion of the "Borderland" upon which the wicked and the insane meet, and the almost utter impossibility in many instances of correctly "sorting" these doubtful cases is shown. Dr. Maudsley has peopled his borderland with such eminent samples that for the future it might almost be considered an honour (and doubtless would be so considered by many unconfined lunatics) to take one's stand in such a distinguished assembly.

"A narrowness and intensity of conviction, something of the same sort as the faith of a monomaniac in his particular revelation, and a fanatical zeal of action, are necessary to constitute the reformer. And in very truth it will be found that many of the great reforms of thought and action have been initiated by persons either sprung from insane families or some of whom might themselves have been thought insane. ..... They were cracked, but, as it has been remarked, the crack let in light."

The relations between prophets and madmen are pointed out, and the etymological bond between *μανία*, madness; *μανική*, the mad art; and *μαντική*, the prophetic art,—is insisted on.

"There was the mania or madness belonging to the prophetic spirit, and there was the mania or madness of disease, running at times so close to one another as not to be distinguishable."

Again:

"There can be little, if any, doubt in the minds of those who do not subscribe to that faith, that an epileptic seizure was the occasion of Mahomet's first vision and revelation, and that, deceived or deceiving, he made advantage of his distemper to beget himself the reputation of divine authority. ..... For my part I would as soon believe there was a deception in the trance which converted Saul the persecutor into Paul the Apostle as believe that Mahomet at first doubted the reality of the events which he saw in his vision."

Whether Dr. Maudsley will increase the practical utility of his work (as one, for example, to which counsel may turn for advice) by this habit which he has of selecting his examples from persons whose names are intimately associated with religious creeds is, we think, more than doubtful.

The third chapter is devoted to the different forms of mental derangement; and the fourth, which is perhaps the most useful in the work, treats of "Law and Insanity." Criminal responsibility is the subject which monopolises the greater part of this chapter, and we are deeply indebted to Dr. Maudsley for laying before us the opinions of some of the American judges on this subject. We are all agreed that the question at present submitted to the jury—a knowledge of right and wrong in reference to the act *sub judice*?—is excedingly clumsy, and so uncertain in its results that "were the issue to be decided by tossing up a shilling, instead of by the grave procedure of a trial in court, it could hardly be more uncertain." Large quotations are made from the American case of State *v.* Pike, in which Chief Justice Perley instructed the jury that they should return a verdict of Not guilty "if the killing was the offspring of mental disease in the defendant; that neither delusion nor knowledge of right and wrong, nor design or cunning in planning and executing the killing and in escaping or avoiding detection, nor ability to recognise acquaintance, or to labour or transact business or manage affairs, is as a matter of law a test of mental disease; but that all symptoms and all tests of mental disease are purely matters of fact to be determined by the jury." Judge Doe, speaking in the same case, made the following remarks, which seem to us so pertinent that we must quote them at length:—

"A striking and conspicuous want of success has attended the efforts made to adjust the legal relations of mental disease. . . . It was for a long time supposed that men, however insane, if they knew an act to be wrong could refrain from doing it. But whether that suspicion is correct or not is a pure question of fact—in other words, a medical supposition—in other words, a medical theory. . . . The knowledge test in all its forms, and the delusion test, are medical theories introduced in immature stages of science in the dim light of earlier times, and, subsequently, upon more extensive observations and more critical examinations, repudiated by the medical profession. . . . Whether the old or the new medical theories are correct is a question of fact for the jury; it is not the business of the court to know whether any of them are correct. The law does not change with every advance of science; nor does it maintain a fantastic consistency by adhering to medical mistakes which science has corrected. The legal principle, however much it may formerly have been obscured by pathological darkness and confusion, is that a product of mental disease is not a contract, a will, or a crime. It is often difficult to ascertain whether an individual has a mental disease; but these difficulties arise from the nature of the facts to be investigated, and not from the law; they are practical difficulties to be solved by the jury, and not legal difficulties for the court."

Chapter V. treats of Impulsive Insanity and Moral Insanity, and although full of interesting matter, need not detain a reviewer who is writing for medical readers.

Dr. Maudsley next touches upon Partial Insanity, and this section of the book is marked by the same originality and lively thoughtfulness as those which precede and follow it. The absurdity of holding a monomaniac (so called) responsible for any of his acts is shown with remarkable clearness, and illustrated with aptly chosen examples.

"The very fact that an insane delusion does persist in the mind is proof enough that the man cannot reason soundly; he will reason insanely, feel insanely, and, sooner or later, act insanely. Its foundations are not laid in reason, but in disease; and it holds its ground in the mind just as a cancer or other morbid growth holds its ground in the body—by drawing to its own use, and converting to its own nature, the nutriment which should support healthy activity, and so render its existence impossible."

Some interesting cases are quoted which show the pertinacity with which the insane hold to their delusions, in spite of the most convincing proofs to the contrary, proofs which are perfectly plain to them, which they are totally unable even to attempt to confute, and which may seem for the time to have the effect of beating their madness out of them. An interesting American case is also given which illustrates forcibly the extraordinary cunning exhibited by the insane in perpetrating crime, and in avoiding the punishment which they know their crime will bring upon them. The position which the medical profession now almost unanimously takes in regard to partial insanity is defended in the following summary:—

"The medical doctrine, by which monomania is held to exclude criminality, is founded mainly on the three following considerations:—First, that a delusion may be concealed, wherefore it might be overlooked, although it had actually affected the conduct; secondly, that it is impossible to follow the workings of an unsound mind and to discriminate between a healthy and a morbid working thereof, it being beyond dispute that an act which a looker-on cannot discover to have any manner of connexion with the delusion may still be the insanely logical outcome of it; and thirdly, that it is impossible to isolate an insane delusion, and thus to prevent the infection of its morbid nature from spreading, it being certain that the whole disorder in monomania is not restricted to one delusive idea, that the rest of the mind is in a more or less marked state of moral or affective alienation—in a state, therefore, in which insane impulses to acts of violence are likely to occur."

The seventh chapter is devoted to Epileptic Insanity, and the eighth to Senile Dementia.

The ninth and last chapter, on the Prevention of Insanity, is one of the most original and interesting as it is probably the most important in the book.

"How far," asks the author, "is a man responsible for going mad? This is a question which has not been much considered, yet it is one well worthy of deep consideration, for it is certain that a man has or might have some power over himself to prevent insanity. However it be brought about, it is the dethronement of will, the loss of the power of co-ordinating the ideas and feelings; and in the wise development of the control of will over thoughts and feelings there is a power in ourselves which makes strongly for sanity. From time to time we may see two persons who have had the same faulty heritage, and who, so far as we can judge, have not differed much in the degree of their predispositions to insanity, go very different ways in life—one, perhaps, to reputation and success, the other to suicide or madness. A great purpose earnestly pursued through life, a purpose to the achievement of which the energies of the individual have been definitely bent, and which has, therefore, involved much renunciation and discipline of self, has perhaps been a saving labour to the one, while the absence of such a life-aim, whether great in itself or great to the individual in the self-discipline which its pursuit entailed, may have left the other without a sufficiently powerful motive to self-government, and so have opened the door to the perturbed streams of thought and feeling which make for madness."

The idea of our author, which is merely shadowed in the above paragraph, is developed at some length, and no one can fail to see the germ of truth which it contains. Dr. Maudsley, however, is neither Quixotic nor unpractical in his views, and he admits that to check insanity it is necessary to begin further back, and that by limiting our efforts to the patients themselves we shall not be likely as a rule to obtain very decided results. The hereditary tendency of insanity is a thing which none will dispute, and knowing this it would be well if the following extract could come under the eyes of those who are contemplating matrimony. Love, of which poets and novelists talk so much, is one of the strongest evidences of the community of nature between man and animals.

"It is in this community of nature that we may perceive the explanation of the excitement, rejoicings, personal decoration, and feastings, which continue to be the usual accompaniments of marriage, notwithstanding that reason might dictate a more quiet and sober carriage. For it would not be a very absurd thing if an ingenious person, considering curiously what a solemn undertaking marriage is, and what serious responsibilities it entails, were to maintain that men and women should enter into it soberly and rather sadly, under a grave sense of responsibility, as upon an uncertain voyage, and should reserve their rejoicings for the journey's end, when, having acted well their parts, they might fairly claim a *nunc plaudite*."

By his rejoicings at a wedding man merely plays a part in common with the plants that put forth their gayest flowers, and the birds that assume their gaudiest plumage.

Another great cause of insanity is "alcohol," and "Good Templars," *et hoc genus omne*, will be glad to learn that they have in Professor Maudsley a powerful teetotal advocate.

Lastly, we have in education a great power for the prevention of insanity, although this must be a work of time, "for centuries are but seconds in the great process of human evolution." As regards the kind of education which we should receive, it should be mainly scientific. The natural sciences which teach man the laws of his own body, and the laws of the bodies which surround him, will also teach him the evil effects of acting contrary to those laws, of which evil effects insanity is one. Again, scientific studies are the best means of training the mind, taking the student as they do

"Through the steps of observation, generalisation, abstraction, inductive and deductive reasoning.....Nor is the moral nature uninfluenced beneficially by the pursuit of science. It is a labour in which there is but one way of succeeding, and that is through obedience. To penetrate the secrets of nature, and to become master of her laws, patience, humility, and veracity are essential qualities; and by veracity in this relation is meant, not only the sincere expression of opinions once formed, but sincerity also in the apprehension of truth—a perfect freedom from bias, and an entire sincerity of nature in forming and weighing opinions, as well as in uttering them."

The moral nature of man, Dr. Maudsley affirms, is a subject in every way fit for scientific investigation, and that "morality will obtain as strong a sanction from an inductive method of study as it now has, and has happily long had, from authority," he entertains no doubt. An essential part of Dr. Maudsley's scheme of scientific education would consist of scientific morality.

We have at length finished our somewhat protracted notice of this valuable work. We have purposely contented ourselves with quoting rather than criticising, because we believe we shall in that way best serve the important end which our author has in view. Many of the ideas put forward will be considered, by a large section of readers, highly heterodox and dangerous, but that is a matter of small consequence if only they be true, as we believe in the main they are. It is a work which should be carefully studied, not only by our own profession, but by the other learned

professions as well, and although it will excite no little discussion, and, may be, opposition from members of the legal as well as the clerical body, we are, nevertheless, sure that it will serve, more than any previous work upon the subject, to establish satisfactory relations between law and insanity.

Leçons Cliniques sur les Maladies des Voies Urinaires. Professées à University College Hospital de Londres par Sir HENRY THOMPSON, Chirurgien Extraordinaire de S. M. le Roi des Belges, Professeur de Clinique Chirurgicale, et Chirurgien à University College Hospital. Traduites, annotées, et augmentées d'une Introduction Anatomique, par les Docteurs JUDE HUE, ex Chirurgien-en-Chef de l'Ambulance Internationale Rouennaise, &c., et F. GIGNOUX, Ancien Interne de l'Hôpital Saint Eloi, &c. Ouvrage contenant 40 gravures sur bois et 3 Leçons de plus que la troisième et dernière Edition Anglaise. Paris: G. Masson. 1874. pp. 532.

Traité Pratique des Maladies des Voies Urinaires. Par Sir HENRY THOMPSON, F.R.C.S., Professeur de Clinique Chirurgicale, et Chirurgien à University College Hospital; Chirurgien Extraordinaire de S. M. le Roi des Belges, &c. Traduit, avec l'autorisation de l'auteur, et annoté par EDOUARD MARTIN, EDOUARD LABARRAQUE, et VICTOR CAMPENON, Internes des Hôpitaux de Paris, Membres de la Société Anatomique. Précédé des Leçons Cliniques sur les Maladies des Voies Urinaires professées à l'University College Hospital traduites et annotées par les Docteurs JUDE HUE et F. GIGNOUX. Avec 280 figures intercalées dans le texte. Paris: Librairie J. B. Baillière et Fils. 1874. pp. cxxx. & 775.

SIR HENRY THOMPSON'S works have recently appeared in France in the two forms given above. His Clinical Lectures have been translated by two Rouen surgeons, who have prefixed to them a somewhat lengthy anatomical description of the urinary organs, and his three works on Stricture, Diseases of the Prostate, and Stone, have been translated in one volume by three Parisian *internes*, who have also prefixed to their work the translation of the Clinical Lectures referred to. Both editions of the Clinical Lectures contain three lectures not given in the last English edition, but which have appeared in the columns of THE LANCET during the last two years. The first is the well-known lecture on Renal Complications of Calculous Affections, which was delivered early in 1873 (THE LANCET, March 8th, 1873); the second, on the Solvent Treatment of Stone (THE LANCET, April 5th, 1873); and the third, on the Future of Operative Surgery in the Treatment of Stone (THE LANCET, December 20th, 1873). The first was translated by Dr. Curtis, the second by M. Campenon, and the third by M. Labarraque. As regards the shares of the translations of the three treatises by Sir H. Thompson, that on Stricture was undertaken by M. Martin, the Diseases of the Prostate by M. Labarraque, and Lithotomy and Lithotrity by M. Campenon. Each of these gentlemen has introduced some original observations and selections from French authors, and a number of illustrations have been borrowed from Cruveilhier, Civiale, Mercier, and others.

The Clinical Lectures represent Sir H. Thompson's most recent practice and teaching, whilst in his other works may be traced the steps by which he has attained these results. It is right, therefore, that these lectures should precede the more systematic teaching. Some contradictions of more recent opinions which appear in the English editions of these earlier works have been judiciously toned down or omitted, and the work, as a whole, will give French surgeons a very good idea of the most advanced British surgery in this important department. We congratulate all the translators upon the accuracy with which they have fulfilled their charge, and the author upon the wide-spread celebrity which these translations into French cannot fail to secure for him.

REPORT
OF
The Lancet Sanitary Commission
ON
THE OUTBREAK OF SMALL-POX AT NEWMARKET.

THE circumstances that have attended the outbreak of small-pox at Newmarket are in a sanitary aspect specially deserving of attention, because they illustrate well the origin and progress of epidemic disease in urban as well as rural districts, and show also the kind of control that can and cannot be exercised by the respective sanitary authorities under the present system of working of the Public Health Act.

The town of Newmarket contains rather more than 4000 inhabitants, is surrounded by breezy downs on all sides, is built on a chalky and sandy soil, has very few slums, and has had up to the present time very few epidemics. There are no waterworks (although it appears that an abundant supply of water might be obtained by simple gravitation from a distance of about two miles), and the population depends for water chiefly upon wells and some few springs.

The first case of small-pox occurred on or about the 20th of May in the person of a labourer, who came home affected with it from Dewsbury, and who communicated the disease to his wife. The attack, however, was of so mild a character that both these people continued their usual occupation, so that nothing was heard of the matter until a third case was discovered on the 15th of June at a small inn, called the "Rising Sun," in the immediate neighbourhood, and it appeared that this person had been ill a fortnight before the fact came to the notice of the sanitary authority. The landlord of this establishment declined persistently to take any special precautions to prevent the spread of the disease, and, as the legal rendering of the word "guest" in the Act appears ambiguous, has been able up to the present time to set the authorities at defiance. The disease soon found its way into a network of courts and alleys, called the Rookery, which is probably the worst quarter of the town, and the inhabitants of which patronise extensively the liquor at the "Rising Sun." In this Rookery small-pox has now existed for six or seven weeks, and there it still remains in the person of a child confined to bed and of his father, who, now convalescent, persists in airing himself in and about the court in the immediate vicinity of his neighbours, so that in the immediate neighbourhood most of the shops are closed. Other cases are scattered in various parts of the town, and during the day on which we write (5th inst.) two or three fresh cases were reported to the authorities. There are also some few patients in the villages around Newmarket, most of these being domestic servants, who were sent home as soon as outward symptoms of the malady appeared upon them. Up to Wednesday afternoon last 81 persons had been attacked (of whom 47 were males, 34 females) and 4 infants. Of this total number, 24 cases were confluent (all unvaccinated), and of these 11 have died; so that the disease has already attacked about 2 per cent. of the inhabitants, and has proved fatal in more than 12 per cent. of these cases. Such are the facts, stated as briefly as possible; and, in now proceeding to record what has been done and attempted, it needs but to remind the reader that the rays of the disease, wheresoever they may have penetrated, can be traced back without difficulty to the "Rising Sun."

As soon as the urban sanitary authority became cognisant of the presence of the disease, immediate steps were taken to provide hospital accommodation. Dr. Armistead, the medical officer of health for Newmarket (both urban and rural) advised his Committee to procure an iron hut or hospital. This, however, appears to have been objected to on the score of expense, and a wooden building (which will, as we take it, cost as much as the iron structure) is now

being erected on a small plot of ground in the outskirts of the town. But as cases were increasing in number, and the union ward for infectious diseases was already full, the Committee applied on the 25th ult. to the Jockey Club for permission to utilise the "July" grand stand on the race-course, an old building (said to have been erected by Charles II.) about three miles from the town, exposed to the wind in every direction, and completely isolated. Permission was granted, nurses and hospital furniture were immediately procured, and on the 27th the building was occupied by the sick. The establishment now consists of a few houses, one of which includes a large ward below for males and one above for females, each holding fifteen beds; a second contains two smaller convalescent wards, a bath-room, and a copper &c. for the disinfection of clothing; and a third building (once the weighing-room of the race-course) has been converted into a kitchen, with nurses' quarters attached. Great credit is due to those who had the management of this work, for the alterations were commenced and concluded within three days, and a dead-house appears now to be the only chief thing needful. As soon as these quarters were ready, Dr. Armistead directed the removal of all patients scattered about the town, and has been cordially assisted in this somewhat difficult business by the urban practitioners and by the generosity of Baroness Meyer de Rothschild, who has sent a donation of £50 to be distributed at discretion for the relief of those left behind. There are now only four cases of the disease in the town, one of whom refuses and the rest are too ill to be moved. The Union wards at present contain thirteen cases, as at the commencement of the outbreak all pauper patients were sent to this building, which, by the way, is entirely unsuited to the purpose to which it is applied. Arrangements, however, are being made for their removal to the heath hospital, and Dr. Armistead anticipates that in three or four days every case of small-pox will be housed in the latter establishment, and every house from which they have been removed properly disinfected. Some delay was caused by the apparent difficulty of combining the urban with the rural sanitary authority for hospital purposes, but the energy of Mr. Chennel (the chairman of the urban board) and of the medical officer of health appears to have surmounted all chief obstacles, and much praise is due to the latter for the efficacious system of administration now organised in the town and surrounding districts.

In summing up the foregoing it may naturally be premised that the attention of health officers will be directed to the facts (1) that a publican appears to have the power of assisting in the circulation of an infectious disease in the manner above described, and in this case has done so with impunity; (2) that a man convalescent with small-pox scatters the disease by declining to go into the hospital, by strolling about the streets, and by creating another nucleus of it in the shape of a sick child retained at home; (3) that, having regard to the above statistics, vaccination appears to be at a discount in Newmarket—a conclusion worthy the consideration and attention of Dr. Seaton and his colleagues. The strictly legal aspects of the difficulties above-mentioned, and the readiest way to surmount them now and for the future, those in Gwydyr House and its precincts, who have framed the Act, best can tell; but the outbreak will in all probability form the subject of an extended inquiry by the Medical Department of the Local Government Board.

We have to acknowledge the great courtesy of Dr. Armistead, and much politeness on the part of the medical residents at Newmarket, in gleaning the above particulars of a somewhat serious outbreak.

ARTICULATION WAVES RECORDED.

AN ingenious idea has been started, and experiments made, by Mr. W. H. Barlow, F.R.S., relating to the possibility of the human voice itself recording upon paper its own articulated sounds.

By making the air which passes from the mouth in speaking impinge on a stretched membrane, he found that this vibrated more or less according to the nature and intensity of the impulse, and by arranging a delicate apparatus he has succeeded in making articulation both visible and legible.

He has a small speaking-trumpet about four inches long, the end of which is about two inches in diameter, and has a thin skin stretched across. A light arm of aluminium carrying a pencil is pressed by a slight spring upon the centre of this membrane, and, moving with it, marks on a travelling slip of paper each vibration—in fact, in a similar way to the sphygmograph.

On speaking into this trumpet it is noticed that each sound has its own particular character, and makes its own particular mark; but that what are called the explosive sounds, as b, d, t, make the strongest, and are thus more easily recognised. The diagrams which are formed are shown not to be fortuitous, as every time a word is repeated the mark on the paper is found to be nearly identical, and it is noticed that although there are instances in which considerable differences in sounds do not make much difference in the diagram, yet, as a rule, every change of sound or articulation produces a change in the diagram, and that there are pneumatic actions revealed which are imperceptible to ordinary observation.

A diagram of the word "communicate" spoken twice is here shown, and it will be noticed how slight is the difference between the marks of the two utterances.

Mr. Barlow has very lately explained his ideas on this subject, illustrated by the apparatus, before the Royal Society, as being at present in a crude state; but it is evident that they contain the germ of what may prove ultimately to be most valuable in science in everyday use.

He is far from thinking that every letter of the alphabet can be recorded, but words can be so formed by phonetic symbols as to be read by persons who study them. In reading a book we do not read each particular letter in the words, but we take each word as it stands, a good deal as the Chinese words are taken—a symbol of an idea.

It may be added that the difference in the action between whispered sounds and those spoken aloud is not so great as might have been expected, but that there is a curious difference in the markings of the same words when spoken by different individuals.

YELLOW FEVER.

ASSISTANT-SURGEON WILLIAM J. MORIER gives, in the last statistical Report on the Health of the Navy, a special account of an outbreak of yellow fever that occurred at Monte Video, and the observations recorded go to prove the influence of insanitary circumstances in the propagation of this disease. The town stands on a promontory jutting out into the river Plate, to which it is open on three sides, thus affording a ready and effective means of disposing of the sewage by simple gravitation. But the reporter remarks that in the low-lying parts of the town close to the river "the streets are narrow, badly paved, and filthy in the extreme, the smell of sewage being plainly perceptible, particularly along the shore, many of the sewers opening on the beach a long way above low-water mark." The disease appears to have been introduced into the city by two engineers belonging to a vessel then lying at anchor in quarantine in the harbour. It is a noteworthy fact that the epidemic was almost entirely confined to the streets in the vicinity of which it originated, especially those where the foreshore was most filthy, and that though the great majority of the cases were treated in the Ciudad Hospital, which was at the time occupied by a large number of medical and surgical cases of various descriptions, none of these cases were attacked by the disease. The wards, corridors, and passages of this establishment are reported to be large, lofty, and exceedingly airy, and the quadrangle in the centre is occupied by a garden containing a luxuriant growth of vegetation. During the months of March, April, and May a total of 185 cases of yellow fever occurred in this city, of which no less than 136 ended fatally.

THE LANCET.

LONDON: SATURDAY, AUGUST 8, 1874.

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Two Bodies especially deserve praise in this matter—the University of London and the Apothecaries' Society. Finding that they were unable, in virtue respectively of the charter and the Act of Parliament under which they act, to take part in the Conjoint Scheme, and with many inducements to be content to remain out of it, exercising their individual rights independently, they yet, with a creditable amount of public spirit, took steps to procure two Acts of Parliament removing their disability. No sooner have they procured the passing of these Acts than they have taken action upon them, and expressed to the Conjoint Bodies and to the Medical Council their readiness to join the Conjoint Scheme.

The Royal College of Surgeons of England, in the light of such behaviour, appears very disadvantageously. When everything is ready for a Conjoint Scheme they discover that they have not the power of joining it, except upon impracticable terms. Or, rather, this discovery was made as far back as 1871, but is only now disclosed. Since 1871 three parliamentary sessions have passed, during any one of which it would have been most easy for the College of Surgeons to have procured an enabling Act. But only at the end of the session of 1874 they publish their disability. The College must not complain if it is credited with deep dislike to the Conjoint Scheme, and if this dislike is regarded as at the root of its present behaviour. "Where there is a will there is a way." And in this case the way was most easy. But the will was wanting. These are not times in which public bodies can afford to defy public opinion. The College has had, for very shame, to abandon an examination which did not include the subject of Medicine. It has had to make its examination complete. So have all the other bodies. It is high time that the element of competition was got rid of, and that one Licensing Board only should exist in each division of the kingdom. The College of Surgeons has not the excuse that it does not believe in a single Examining Board for each division of the kingdom; for a most decisive division on the subject was taken in 1869. The numbers were: against such a Board, 5—viz., Sir WM. FERGUSSON, and Messrs. SOLLY, HILTON, QUAIN, and GAY; for such a Board, 14—viz., Messrs. T. PAGET, LANE, HANCOCK, CURLING, CLARK, J. PAGET, CHARLES HAWKINS, HEWETT, SMITH, BIRKETT, SIMON, HUMPHRY, HOLDEN, and ERICHSEN. But a minority with the help of an Act of Parliament can offer wonderful resistance. And so to this day the College of Surgeons is able to mar the completeness of a Conjoint Scheme. It had better not, however, presume too much on its importance. The legal conditions of a full qualification in Medicine and Surgery are already secured, and it would be possible to act without the assistance of the College. The licence of the College of Physicians is a qualification in Surgery as well as in Medicine, and, given in conjunction with the Universities and the Apothecaries' Company, would constitute a respectable diploma obtainable at a reasonable cost, the possession of which would supersede the necessity for the di[illegible] somewhat slow and obstructive College [illegible] fields.

WE now resume, according to ou[illegible] tion of the unfortunate Report of [illegible] Committee on the Adulteration of [illegible]

Passing from milk, the Committ[illegible] observations on *butter*. Butter, t[illegible] tains too much water and an un[illegible] "Beyond this, it does not appear tha[illegible] practised in this country." This is [illegible] under-statement of the case. Butters are [illegible] met with which contain over 10 per cent. of [illegible] of curd, and even over 30 per cent. of water; that is to say, from one-third to one-half of many of the butters sold in this country does not consist of the fat of butter at all, but of certain extraneous substances. Then, again, it is not correct to affirm that adulteration is not much practised in this country. Butter is very extensively adulterated throughout the country with foreign fats, especially with the different kinds of dripping. The Committee conclude their report on butter with the observation that "the slight colouring matter occasionally added to butter, cheese, &c., should not, in the opinion of your Committee, be regarded as an adulteration." The answer to this is that it has never been so regarded hitherto. Nevertheless, it is an objectionable practice; because, in the case of butter, it allows the more readily of its admixture with foreign fats; and it is, besides, a proceeding which serves no useful purpose whatever; and in most cases the colouring matter itself contains a large quantity of alkali, and is often otherwise much adulterated, sometimes with lead. It is a great pity that the Committee did not consult somebody conversant with the subject of adulteration before they gave to the world such abundant proof of their own inability to deal correctly with the subject submitted to them.

The next article treated of is *bread*. It is remarked under this head—"No doubt the chief adulteration is alum;

and evidence was adduced showing the great difficulty which the best chemists experience in discovering minute quantities of alum in bread." This statement is altogether misleading and erroneous. Bakers do not adulterate their bread with minute quantities of alum; they put in it very appreciable and even considerable quantities, and no chemist of any repute whatever has the smallest difficulty in detecting the presence and estimating the amount of the alum in such cases.

The Report next deals with *mixtures*; and here, again, the same leniency, not to say weakness, which characterises the Report generally, is exhibited in a very obvious manner. The Report states: "It has been demonstrated to the satisfaction of your Committee that the compounds are frequently made quite as much to suit the public taste as to increase the profit of the manufacturers, inasmuch as by using a lower quality of mustard-seed or cocoa-bean a pure article may be made at a lower price than some of the mixtures." Very specious but very fallacious reasoning this. Nobody objects to the sale of mixtures, provided they are *named* as mixtures and *labeled* as such, and provided the purchaser knows in all cases what he is getting when he asks for mustard or cocoa. But quality is one thing—purity another; and the two things should not be mixed up together, as do the Committee, but should be kept quite distinct. Because some mustard-seed is good and other kinds are indifferent, and because the quality of cocoa-beans varies, that is no reason that we must accept mixtures. The qualities of all articles sold are of course subject to variation. Then the Committee go on to remark: "For this reason the statement of the proportion of each ingredient used could not be any real protection to the consumer, and should not be required." To this statement we likewise take exception. We say that it concerns the purchaser very much whether in the coffee he buys—no matter what the quality of the coffee may be—he gets 30 or 20 per cent. of coffee with 70 or 80 per cent. of chicory, or 70 or 80 per cent. of coffee with 30 or 20 per cent. of chicory; whether the mustard consists of one-third mustard-seed and two-thirds wheat-flour and turmeric, or whether the proportions are reversed, and it is really composed of two parts mustard and one of wheat-flour, with the usual colouring matter added to conceal the flour; and, lastly, whether the cocoa he buys consists of nearly all starchy matter and sugar, or whether the cocoa itself is the predominant ingredient. The observation of the Committee just noticed is followed by the remark: "It is also due to the manufacturer to record, that mixed mustard and prepared cocoa are and have long been manufactured at the Deptford yard for the supply of the navy." Yes, the Government can supply their own troops with just what they please; but they do not come before the public as the sellers of these articles under the names of mustard and cocoa. If they supplied and sold these mixtures, plainly labeled, as mixed cocoa and mixed mustard, then there would be but little to complain of; but, even in that case, strict justice would require the knowledge of the proportions of the several ingredients. "Your Committee, therefore, come to the conclusion that the sale of such mixtures or compounds is allowable, and indeed needful, to meet the public requirements; provided the fact of their being mixtures is plainly indicated to the purchasers by a legible label or notice, conspicuously attached to the outside of each package in which, or vessel from which, such mixture is sold. A verbal declaration at the time of sale is impracticable, and, if practicable, would be unnecessary when a proper label is used." What an amazing amount of mischievous error has been crammed into this short paragraph! That the sale of these mixtures is "allowable" has never been contested; that they are "needful" we deny. At one time we were told that pure mustard and cocoa were uneatable, and that the pure articles were not to be obtained in the market. The purchaser was compelled either to accept the mixture or to do without the article altogether; but since the iniquity of this system has been thoroughly exposed the pure articles have been manufactured and consumed on a large scale. We do not consider it sufficient that these mixtures should be simply distinguished by a label placed on the outside of each package. What is required is, not only that they should be thus labeled, but that they should no longer be called mustard and cocoa; and that the very names under which they are sold should plainly indicate the fact that they are mixtures. The Committee propose to do away with the verbal declaration now required, on the ground that it is impracticable and unnecessary. We affirm that it is both practicable and necessary. We assert that the verbal declaration now required to be made has tended greatly to the protection of the public; and if it were no longer enforced, how would the printed label operate in the case of children and a large portion of the non-reading public? Even of those who do read, how many does the reader think are careful enough to look over all the nooks, corners, and folds of every package of each article they purchase? So much for the value of the Report of the Committee as regards mixtures.

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WE now resume, according to our promise, the examination of the unfortunate Report of the late Parliamentary Committee on the Adulteration of Food.

Passing from milk, the Committee proceed to make some observations on *butter*. Butter, they say, sometimes contains too much water and an unfair proportion of salt. "Beyond this, it does not appear that adulteration is much practised in this country." This is certainly a very great under-statement of the case. Butters are not unfrequently met with which contain over 10 per cent. of salt, 6 per cent. of curd, and even over 30 per cent. of water; that is to say, from one-third to one-half of many of the butters sold in this country does not consist of the fat of butter at all, but of certain extraneous substances. Then, again, it is not correct to affirm that adulteration is not much practised in this country. Butter is very extensively adulterated throughout the country with foreign fats, especially with the different kinds of dripping. The Committee conclude their report on butter with the observation that "the slight colouring matter occasionally added to butter, cheese, &c., should not, in the opinion of your Committee, be regarded as an adulteration." The answer to this is that it has never been so regarded hitherto. Nevertheless, it is an objectionable practice; because, in the case of butter, it allows the more readily of its admixture with foreign fats; and it is, besides, a proceeding which serves no useful purpose whatever; and in most cases the colouring matter itself contains a large quantity of alkali, and is often otherwise much adulterated, sometimes with lead. It is a great pity that the Committee did not consult somebody conversant with the subject of adulteration before they gave to the world such abundant proof of their own inability to deal correctly with the subject submitted to them.

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The Report concludes with some general remarks; a few of which, and especially those more open to objection, we shall now briefly notice.

"Your Committee think that evidence from well-established analysts should be allowed to be produced for the defence." This has been, so far as we are aware, the invariable practice; and we have watched the prosecutions under the Act with very considerable regularity and diligence, and have never met with a single instance in which the defendant has been denied the privilege of producing whatever rebutting testimony, scientific or otherwise, he desired. "And they [the Committee] suggest that, when cases of dispute arise, there should be a Board of Appeal to settle the disputed points; and, in the absence of further information as to any better appeal, your Committee suggest that, where the analysis of the chemist of the Local Authority is challenged, the sample which is the matter of dispute shall be analysed at the laboratory of Somerset House, and the decision arrived at there be regarded as final." We consider it very questionable whether the establishment of any Court of Appeal is necessary or desirable. We are of opinion that each case should be settled as are all other cases, even those of poisoning, by the evidence given on both sides; and even if it could be shown that such a court was required, we protest energetically against the Excise laboratory of Somerset House being that court. We object to it because, some years ago, adulteration was rife in every excisable article placed under their supervision; and because, up to this date, they have never done anything to prove their competence to deal with the subject. And, further, this body is almost unknown scientifically, we being unacquainted with even the names of the chemists who have the charge of this laboratory. If such a court is to be established, at all events let it consist of chemists conversant with the subject, and of high and worldwide renown, so that its decisions may command general respect and confidence.

"Your Committee are of opinion that the analysis of the chemist of the Local Authority should be received in evidence without his presence being necessary, unless the defendant should demand the personal attendance of such analyst." There is no doubt, we think, that the defendant would in every case "demand" the personal attendance of such analyst; and, therefore, if it be left to the option of the defence, we are confident that the personal attendance of the analyst would, under this recommendation of the Committee, be as much required as heretofore; such attendance being a source of constant annoyance, and doubling and trebling the labours which would otherwise devolve upon him.

Another important paragraph of the Report is the following:—"Evidence has been offered to your Committee that the requisites for a thorough examination of the knowledge and skill of the analyst exist in the School of Chemistry at South Kensington; and they suggest that the Local Government Board should have the option of calling upon the analyst for a certificate of having there passed such an examination." Among the qualifications required under the Adulteration Act of 1872 is competent medical knowledge, such knowledge being required especially for the purpose of determining whether any adulteration is injurious to health or not. The School of Chemistry at South Kensington has no means of testing the medical knowledge of the candidates; and we are glad to see that the General Medical Council, and Dr. ACLAND in particular, are fully alive to the importance of this point, and have already had an interview with the President of the Local Government Board on the subject. The school in question, therefore, is not competent to institute the examination required.

"In conclusion, your Committee believe it will afford some consolation to the public to know that in the matter of adulteration they are cheated rather than poisoned." No doubt this is much more the case now than it was twenty years ago. At the time this journal took up the subject of adulteration, under the guidance of the late Mr. WAKLEY and Dr. HASSALL, the public were both cheated and poisoned. Deadly poisons were everywhere met with, and this often in quantities capable of producing exceedingly injurious effects; while there are many deaths on record arising from the employment of poisonous adulterants. Nor has the use of such substances altogether been discontinued at this time, as it is still a common thing to meet with large quantities of copper in preserved vegetables and fruits, as well as poisonous salts of lead and copper in coloured sugar confectionery; and if any weakness be exhibited in dealing with the subject of adulteration, and if it be legislated upon in the spirit of the Report upon which we have so strongly animadverted, it cannot be doubted that some of those practices now nearly obsolete and so dangerous to health will again be resorted to.

"Your Committee believe that it is the intention of Parliament that consumers should be protected from frauds, and that they should be enabled to procure the articles they ask for and require." Such certainly should be the intention of Parliament, and it is no more than what the public have a right to demand, but what we have shown they are not likely to obtain if Parliament legislates on the weak and faulty Report of its Committee.

The Report concludes with the expression of the following truisms: "But your Committee do not consider that Parliament desires needlessly to hamper or fetter trade, still less to interfere between the buyer and seller with a view of regulating prices or attempting to assist the consumer in ascertaining the real money value of any marketable commodity."

We have now to observe, in bringing our criticism of this Report to an end, that it strikes us as not fair to have circulated it as has been done, and to have placed it in the hands of the press unaccompanied by the evidence of the witnesses, upon whose testimony it ought properly to be strictly based. The opportunity, therefore, has not yet been afforded to the public of comparing this Report with the evidence given; and we may say that, as far as the chief witness—Dr. HASSALL—is concerned, the Report scarcely embodies a single one of the recommendations made by him which bear immediately on the question—What constitutes adulteration? On the whole, we must pronounce this Report as erroneous, misdirected, and mischievous; and we earnestly hope that it will be repudiated alike by the public, by the press, and by Parliament.

THE Bill for Amending the Law of Births and Deaths Registration has at last emerged from the shadowy realm of legislative possibilities, and may be regarded as having virtually taken its place in the statute-books of the nation. Quite recently its chances of inclusion in the "massacre of the innocents," which had then set in with more than usual sessional severity, were certainly preponderant over any hope of its survival, taking into consideration the formidable-looking list of proposed amendments which were on the notice paper. But those familiar with parliamentary strategy know how far a little judicious management goes in facilitating the progress of one measure as in impeding that of another; opposition, which would be troublesome enough at six or seven o'clock in the evening, having a remarkable tendency to become enfeebled after midnight. We are not, therefore, in the least surprised that it was found practicable to pass this Bill through committee very rapidly at twelve o'clock at night, or that under such circumstances out of nearly fifty amendments only some twenty were carried, and of those the greater part were proposed by the Minister in charge of the Bill. Undoubtedly, in the amended shape in which it went to the Upper House, the Bill was a decided improvement on the existing law, if for no other reason than that it makes the registration of births for the first time compulsory in England, under a distinct penalty against parents who neglect to give notice of births to the registrars. The registration of deaths will likewise be rendered more perfect in respect of various technical details, to which we need not refer; while, as regards the provision made for checking infanticide by putting certain restrictions upon the burial of still-born children, and the omission to insist upon the production of evidence to the officiating minister, prior to the burial of any body, that the death has come to the registrar's knowledge,—these are points in which we think the Bill might have been advantageously amended. As to the medical certification of the causes of death, the Bill as it stands differs from its original form only in this, that there is now no provision specifically made for cases in which neither medical certificate nor coroner's information of the cause of death is forthcoming when the death is registered. It was proposed by Clause 20 of the unamended Bill that in such cases the registrar should take "sufficient means" to satisfy himself that the death resulted from natural causes; for this rather vague instruction Dr. LYON PLAYFAIR would have substituted an authority to call in the Poor-law medical officer, while Dr. LUSH wished that the coroners should be first appealed to. Neither of these amendments appears to have been pressed, while one to omit Clause 20 altogether was carried. In all cases where a medical man is in attendance during the last illness of a patient, he will, *if he be a registered practitioner*, now have to "sign and give to some person required by this Act to give information concerning the death a certificate stating to the best of his knowledge and belief the cause of death." And in Clause 38 it is enacted that "every person who refuses or fails without reasonable excuse to give or send any certificate in accordance with the provisions of the said Acts shall be liable to a penalty not exceeding forty shillings for each offence."

The Bill will probably have received the Royal Assent by the time this journal is in the hands of its readers, and it will come into operation on the 1st of January next. We advise our medical brethren to take an early opportunity of acquainting themselves with its provisions in closer detail than our pages have enabled them to do; for while it concerns everybody from a domestic point of view, it entails obligations upon our profession which, as they have been allowed to pass without effective challenge by those who are supposed specially to represent us in Parliament, public opinion will naturally expect us loyally to accept.

As we have before remarked, it remains to be seen whether the substitution of a compulsory for a voluntary system of medical certification will have the effect of imparting greater accuracy to the registration of causes of death, which is one of the main objects Mr. SCLATER-BOOTH professed his wish to accomplish when he introduced the Bill. Much will, no doubt, depend upon the way in which the change is introduced; upon the disposition, in short, of the registration authorities to render the compulsory element as little obnoxious to the profession as is possible. One means of doing this will be to modify the printed form of certificate so as to admit of its being adapted to particular circumstances, and thus to relieve practitioners from the unpleasant position of being required to certify without qualification the *age* and precise date of death of patients, when they so frequently only know either of those facts at secondhand.

We have on a former occasion drawn attention to the opinions of witnesses before the Royal Sanitary Commission as to the desirability of altering the certificate form. In the Eighth Report of the Registrar-General for Ireland, just issued, Dr. BURKE refers to this subject, and observes that the medical men in Ireland (where the printed form is the same as in England) are anxious to be relieved "from the responsibility of being *informants* of the death"—that is, they object to being called upon to certify the age and the date of death. "They would gladly afford every information which could tend to the advancement of science"; and to this end they are willing to certify the *cause* of death alone, as the only one of the facts requiring to be registered which strictly comes within their professional observation.

The Registrar-General may be assured that in urging him to act upon this suggestion we are sincerely desirous of seeing the usefulness of the death-registers developed to their utmost extent for the purposes of public health and of medical investigation. And if he will do so we have little doubt that he will find the profession willing to co-operate with his department in the future as they have done in the past.

ONE of the most important official warnings that has issued from the portals of Gwydyr House since the present Ministry came into office has special reference to the subject of Water-supply. The circular in question, which is addressed to all local sanitary authorities throughout the kingdom, draws attention to the fact that "in several parts of the country the ordinary water-supply has become considerably diminished; and there is reason to be apprehensive that, as the summer advances, the evils arising from

this cause will be much more seriously and extensively felt. Among such evils must be included the very serious danger to health which will arise if, for want of a better supply, recourse is had to polluted water." It then reminds the sanitary authorities of their duty in respect of providing potable water; but does not in any way indicate the ways and means of obtaining it. We may remind our readers that the 50th section of the Sanitary Laws Amendment Bill, now rapidly passing through Parliament, makes special provision for the closing of foul wells and pumps. This is the legal or quasi-legal aspect of the question, and it has not been brought before the attention of the public a day too soon. The want of water, good or bad, in rural districts, is notorious and excessive. The eastern counties, which twenty or thirty years ago possessed a large lake called Whittlesea Mere, and the soil of which was so saturated with water that the inhabitants were popularly supposed to be web-footed, are, and have been for several years, considerably over-drained; and, as we write, fen-land is almost as arid as the Desert of Sahara. Cattle as well as men want water sorely; and vegetation of course fares still worse, for no artificial means of irrigation exists. An able letter that appeared in *The Times* on the 3rd inst. described a similarly sad state of things in the Thames Valley, supplemented by graphic details as to the improvidence and carelessness of the inhabitants, gleaned from the report of Dr. WOODFORD, medical officer of health for the Berks district. And we are credibly informed that the same want exists in the northern and western parts of the kingdom. If the Medical Department of the Local Government Board had occupied a properly prominent position since the Public Health Act of 1872 came into operation, we might have fairly claimed from Mr. SIMON and his colleagues some workable hints as to the remedy and its immediate application. We can only now apprise our readers of its existence and emphasise its importance, and shall next week return to the subject with the best available weapons in our possession.

Medical Annotations.

"Ne quid nimis."

THE SANITARY REGULATIONS OF THE BOARD OF TRADE.

WE have lately obtained possession of a document headed "Supplementary Instructions to Superintendents of Mercantile Marine Officers (Shipping Masters)." These instructions contain, among other useful official information, a certain number of so-called sanitary regulations. Masters of vessels not carrying a surgeon are furnished with "Instructions" as to what to do if an outbreak of cholera occurs, and are enjoined to destroy the clothes and bedding of all persons attacked during the voyage, before the vessel enters any port or place in the United Kingdom, and also to disinfect the berths of cholera patients. If seamen die from cholera at a foreign port, the British Consul is to give directions for the destruction of the clothing, which is not to be sent to the United Kingdom. Cases of scurvy and small-pox are to be reported on arrival, and as to the latter disease, discharges may be granted without requiring the patients to appear at the shipping-office. This is a brief *résumé* of these so-called sanitary regulations. But on turning to later pages of the "Instructions" we come upon a medical report on the use of tidal mud as ballast (about which more will be found in another column), a paragraph about medicines and medical stores and a scale appended, another paragraph as to an official Book of Instructions to be carried in the medicine-chest, a chapter on antiscorbutics, several paragraphs relating to the examination of lime- and lemon-juice, and finally an elaborate chapter on the medical inspection of seamen, in which the magnificent sum of "two shillings" (for the examination of each sailor) is printed in ludicrously large type, economy and conspicuity vieing with each other to produce a great effect. The appendices include the cholera notes above referred to, certain regulations as to crew spaces, the antiscorbutic clauses of the Merchant Shipping Act of 1867, the scale of medicines and medical stores, and a list of medical inspectors of seamen, each and all of whom have had, since their appointment, next to nothing to do.

All this appears to us very fragmentary and unsatisfactory. A great deal of good has been already accomplished by improving in many ways the hygienic conditions under which our seamen live and work, and the standard of health afloat has undoubtedly improved in consequence. But much more remains to be done, and a chief step in the right direction will be the revision and consolidation of these "sanitary regulations." For it is within our knowledge that although British consuls abroad are directed not to send home the effects of seamen who have died of cholera, these effects are sent home, and, indeed, are disinfected or destroyed when they reach London and other places by the respective port sanitary authorities. The 20th and 21st Sections of the Public Health Act of 1872, when put into force by provisional order of the Local Government Board, give large powers as to vessels and their inhabitants, and so it will be found practically useful to direct superintendents of mercantile marine at each and every port to refer all sanitary questions to the port medical officer, with whom he should be thoroughly *en rapport* and in constant communication. This action has already been taken in the port of London, and is plainly in many ways a source of mutual help and support, relieving on the one hand the shipping officer from all sanitary responsibilities, and also greatly increasing the efficiency of the newly constituted port authority. There are, indeed, now many matters in which the Local Government Board and the Board of Trade must work together, if the result is to be successful (notably as to quarantine, or, rather, its proper substitute); but the rules and regulations above referred to, as well as those relating to the emigration service should be rearranged, re-edited, and retabulated without delay.

HYDROPHOBIA AFTER AN INCUBATION OF THIRTY MONTHS.

A MEDICAL MAN recently died in the Paris Maison Municipale de Santé (a valuable institution, being a well appointed hospital for patients able to pay the charges, which vary according to the accommodation,) of the most undoubted symptoms of rabies. Dr. Féréol, who had the management of the case, gives the following summary:—An individual enjoying perfect health, temperate in his habits, and with no hereditary propensity to insanity, is seized, after labouring under low spirits for a few days, with fits of rabies, which carry him off in three days. On a post-mortem examination the lesions usually observed in cases of hydrophobia were found. Two years and a half before the outset of the fearful disease which destroyed him in so short a time, the patient had been bitten by a bitch which was in a rabid state. The animal was examined after death by a veterinary surgeon, who certified to the existence

of rabies. It should, moreover, be observed that the bitch at the time she became rabid was suckling a pup, which died hydrophobic three weeks after the mother.

M. Féréol, under whose care the patient died, has sent an elaborate essay to the Academy of Medicine on the case. A lively and instructive discussion is expected. The essay concludes with the following deductions:—(1) The incubation of rabies, which is mostly limited within the first two months after inoculation, may exceptionally last much longer, and may reach eighteen months, or even two years and a half. (2) The symptoms of the disease are generally of a uniform description, but they may assume various aspects under the influence of numerous agents: as insanity, alcoholism, hysteria, &c. There are, however, certain signs, such as spasm of the glottis, a peculiar mode of sputation, and the symptom known under the name of aerophobia, which belong especially to rabies, and which allow of the diagnosis of the disease, although accompanied by the above-named complications. (3) Idiopathic or imaginary rabies, which is not generally fatal, may end in death; in such case the symptoms will yield sufficient reasons for holding that actual rabies did not exist. (4) The bronchial spuma with rabid patients plays an important part in the phenomenon of sputation, and it may be safely affirmed that the principal symptoms as well as the principal lesions of rabies, in the human subject, are concentrated upon the function of respiration. The characters of the breathing distinguish rabid hydrophobia from the cases of hydrophobia depending on a non-virulent cause.

THE HOLBORN GUARDIANS UPON THE "REQUISITE" TREATMENT OF INFLAMMATION OF THE LUNGS.

THE medical profession, and society in general, are always much indebted to those ingenious persons who add to our knowledge of the treatment of disease. The Holborn Guardians have lately made a discovery of this kind which merits our serious attention, for there can be no doubt either of its great importance or of its entire originality. Shortly described, it is this:—That when an aged person suffers from inflammation of the lungs, with some tendency to delirium, the "requisite" treatment is to tie his feet to the bedstead, and to further bind him down by a sheet *tightly fastened across his chest*. It is true we have no evidence that this treatment has been tried more than once—namely, on a pauper named Heritage, aged sixty-eight, in St. Luke's Workhouse; and there is, further, the somewhat discouraging fact that Heritage appears to have died under it rather precipitately. The House Visiting Committee of the Holborn Guardians, however, took a broad and philosophical view of the matter. Here was an old man, severely, indeed quite inconveniently ill, and with only an ignorant pauper nurse to attend him. What was the duty of that menial when she found that her patient had a tendency to pull his poultices off? She might have called up the paid nurse, or otherwise made herself troublesome; but she preferred to exercise her own reasoning powers on the question. She no doubt reflected that poultices to the chest are meant to be soothing, and as it seemed too much bother to get the old man to keep his poultices on, she determined to soothe him by moral means. Enforced stillness would, she thought, be the "kindest" thing to provide for him (she stated so in evidence), and she accordingly secured him in the manner above described, fully expecting that with immobility of body he would regain his peace of mind. Apparently Heritage was a perverse exception to the principle which Mrs. Edith Barnes, the pauper help, had evolved out of her moral consciousness. "Some hours after" he had been thus carefully packed up, he called to the Master of the Workhouse, who happened to come into the ward, and said, "For God's sake, sir, take these things off." The master, evidently a narrow-minded person, could not see the beauty of Mrs. Barnes's principle. He removed the poor old fellow's ligatures, and, by poulticing and the like, did what he could to carry out the doctor's orders. He seems to have been so unreasonably shocked at the fatal issue, which happened a few hours later, as to have actually suggested an inquest. All these considerations were, however, pooh-poohed by the superior intelligence of the Committee of the Guardians. With two notable exceptions, they all agreed that "nothing had been done but what was requisite."

We think it more than questionable whether the medical profession will endorse the singular treatment which Mr. Heritage received; and though, no doubt, the Holborn Guardians are naturally infallible, there is one ugly circumstance which prevents our accepting their new doctrine unreservedly. It seems that two of their number were very far indeed from thinking that Mrs. Barnes's treatment was either requisite or even tolerable. Messrs. Hopkins and Cattrell loudly declared that Heritage had been "murdered"; and though murder was doubtless a strong word to apply to Mrs. Barnes's conduct, yet, perhaps, if we exchange it for "manslaughter" we shall have quite sufficiently diluted its force. But then arises the further and more distressing question, Who was it that really did away with Mr. Heritage—Edith Barnes, the pauper nurse, or the Holborn Guardians who allowed such a creature to have charge of a patient suffering from dangerous acute illness? We trust that Mr. Sclater-Booth is not so callous or so immersed in affairs as to allow this incident to pass without a searching investigation as to the manner in which the Holborn Guardians provide for the nursing of their sick. We should imagine that he does not wish for another "LANCET Commission on Workhouse Infirmaries," yet there is some risk of his being exposed to that painful ordeal, if he passes over so scandalous an incident as that to which we now direct the attention of the public.

VARIATION OF PRESSURE IN DIFFERENT SECTIONS OF THE VASCULAR SYSTEM.

IN a series of manometrical experiments undertaken in Würzburg, Prof. Fick has endeavoured to ascertain the form of the variation of pressure in the vascular system, which may be comparable with the variations in the form of the pulse-wave obtained by the sphygmograph. He finds that in the larger arteries the blood-pressure rises very rapidly at the commencement of the pulse-wave, and then sinks slowly to its original value. Near the apex of the curve is an indentation, the position of which in regard to the apex in different instances admits of being reduced to three types. Sometimes the highest pressure is reached after the indent; sometimes it occurs immediately before and after the indent at the same height, or, in other words, the indent is at the apex of the curve; and, lastly, the indent occurs long after the highest pressure has been attained, so that the tracing resembles the normal dicrotous sphygmographic curve of the radial artery. This last type is more marked the farther from the heart towards the periphery of the circulation the tracing is taken. Consideration of the three forms of curves has led Fick to regard all three as the resultants of two factors, the differences being due to the relative value and preponderance of the two. One factor presents the character of an equable rise and fall of the blood-pressure, the other corresponds to a sudden elevation, succeeded by at first a rapid and then a more gradual depression of the pressure. If the value or amplitude, as he terms it, of the latter factor be great in

comparison to that of the former, the normal dicrotism is produced; and, as the dicrotism is more evident towards the periphery, it would seem that the systole of the heart has two actions, of which one (the sudden elevation and gradual, at first rapid and then slower, fall) is less weakened in its passage through the arterial system than the other, which consists in a *gradual* elevation and depression of the pressure.

Fick then proceeded to determine the form of the variations in the blood-pressure in those cavities of the heart that are accessible to experiment—namely, the right auricle and ventricle and the left ventricle. In the right auricle the pressure seems to stand pretty constantly at zero (i. e., at the pressure of the atmosphere), and it is here but slightly influenced by the synchronous actions of the heart, except that, curiously enough, it rises with the contraction of the right ventricle rather than with that of the right auricle; it is somewhat more influenced by the respiratory movements, rising considerably above zero during expiration, and falling as much as 10 mm. of mercury below zero during inspiration. In the right ventricle the highest pressure rose to 18 mm. to 42 mm. in dogs. At the moment of the systole the blood-pressure rapidly rises and remains at the highest point as long as the systole lasts; it then sinks rapidly to its lowest value. A remarkable peculiarity observed was that after the systole was completed the blood-pressure in the ventricle fell far below zero, which seems to demonstrate the existence of an aspiratory action or active dilatation on the part of the ventricle.

Fick finds the same curve for the left ventricle that has been given by Marey. It exhibits an indent at the apex. The maximum lies behind the indent. In the descending part of the curve is a section corresponding to a primarily less but subsequently greater rapidity of the fall. The pressure reaches the height of 140 mm. in the left ventricle. The apices of the pressure-waves in the aorta are equal to those of the ventricle, but the depressions are not so great, obviously on account of the valves preventing the fall from occurring beyond a certain point. Another curious point that Prof. Fick seems to have made out is that when the action of the heart is excessively accelerated, the pressure on the left ventricle is diminished.

THE NORTHAMPTONSHIRE COMBINED SANITARY DISTRICTS.

THE delegates of the Northamptonshire combined sanitary districts met a few days ago, and their medical officer of health, Dr. Haviland, presented to them a report of his proceedings since the previous quarterly meeting. In this report Dr. Haviland gave an elaborate account of the sanitary condition of several parts of the area under his supervision. Especially he submitted to the delegates an analysis of the mortality of combined districts from certain causes of death, illustrated by maps shaded to show topographically the teachings of the death-registers. Dr. Haviland's example in this respect might be usefully followed by other officers of health. There would appear to be an obvious movement among the authorities in Dr. Haviland's districts for carrying out the Sanitary Acts. He notes the adoption, or signs of adoption, in more than one instance, of better methods of filth-removal and deposit, and there seems to be a growing feeling among the several authorities that it would be well to come to some common decision as to a method of filth-disposal. Writing of Newport-Pagnell, Dr. Haviland observes:—

"At Newport and Olney some very successful drainage-works have been carried out. The sanitary committee encourage the earth- and ash-closet system, and is now embarking upon that most necessary of all sanitary regulations—regular scavenging. This is an example worthy of imitation by every rural sanitary authority in the kingdom; for after a good and independent water-supply, the next thing most needful is the scavenger with his cart. When once this institution has been established, then earth- and ash-closets will become practicable, especially if the scavenger be the servant of the sanitary authority, or at least responsible to it. Not only will the scavenger supervise the closets of the area over which he travels, but he will be a most valuable adjunct to the sanitary staff, and of essential service to the inspector. Every parish ought to have a 'muck acre,' where the contents of the scavenger's cart might be emptied, and allowed to remain until it is matured and ripened into manure fit for the farmer's or gardener's use. When once the value of this manure is known, the scavenger's cart will begin to pay. Why the contents of cesspools &c. have been so frequently condemned by agriculturists is because they have been carted as manure on the land in a crude form, the consequence of which has been that they have poisoned vegetation instead of feeding it."

Dr. Haviland directed attention to the important question, in relation to health, of the periodical flooding of low-lying land on the banks of streams, and he pointed out the necessity of taking measures for the prevention of this. It is much to be regretted that Dr. Haviland's reports are not printed in a separate form, and we are of opinion that the authorities of his district would do well to take some measures for their separate publication. The local journals, to their credit, give much prominence to his reports, but it would be well for the several localities to which they refer to have them in a form which admits of easy reference.

THE SCOTTISH LUNACY REPORT.

ONE fact is brought out with increasing prominence in this able report—to wit, the superiority of small to large asylums. The former are more tranquil and home-like than those in which large numbers of patients are congregated together. No doubt the condition of a large asylum is greatly dependent on management and classification. Where it is the rule to bring together into so-called "refractory wards" all the noisy and unmanageable cases, a large asylum cannot fail to be beset by great difficulties in its administration—a state of things in which the patients do not readily obtain that comfort and tranquillity which is possible in other circumstances. The "refractory ward" accounts for much of the excitement and turbulence characteristic of the Royal Edinburgh Asylum; while the classification adopted in small establishments like those of Haddington or Elgin secures complete tranquillity. It has, indeed, been urged that insanity differs in urban and in rural districts, and that this difference explains the superior tranquillity in the small over the greater asylums. But, even though it were the case that patients drawn from the more excitable and degraded population of cities are less tractable than their rural counterparts, it does not weaken the fact that the latter being grouped in smaller numbers are *ipso facto* more amenable to treatment. The opinion of the Scottish Commissioners is stronger than ever that "if our larger asylums were so arranged that each ward should become, as it were, an independent establishment, admitting its patients in rotation as they presented themselves, a very great increase of tranquillity would be likely to follow. It is not meant, of course, that a mere change of classification would effect this result. The wards must be regularly visited by the superintendent, in whom all authority centres, who should show himself to be in reality what he is in name, the friend and guardian of the patients, and their shield and protection against the roughness and caprice of the attendants." Another fact which is very significant in this connexion is the great difficulty of investigating the so-called "accidents" to which

inmates of asylums are exposed. While many of the patients are unfit to give trustworthy evidence, those who can are deterred by the fear of incurring the ill-will of the attendants. Plausible statements by the parties who might be implicated, or an affected ignorance of the whole matter under inquiry, too often baffle investigation, although the culprit is undoubtedly among the inmates. Here, again, the aggregation of lunatics in asylums must be credited with much of the evil. "Accidents prevail in proportion to the impunity enjoyed by their authors, and such impunity is much more possible in the large asylum with its "refractory ward" than in the small one with its less promiscuous classification.

THE THERAPEUTICAL ACTION OF QUININE.

M. SÉE has been delivering at the Charité a series of clinical lectures on the therapeutic action of quinine, some notes of which may be of interest. He is one of the most advanced scientific therapeutists, and believes that the action of drugs in disease may be predicted and explained by their physiological action in health. It is impossible to give more than a general idea of the views advanced and ably expounded by references to the natural history of the various diseases and the known action of quinine in their different forms, especially with regard to malarial fevers and acute rheumatism. His general conclusions are as follows:—

In health quinine has a threefold action: firstly, it diminishes the frequency and force of the action of the heart; secondly, it lowers the tension in the arterial system; and, thirdly, it lowers the temperature, or prevents its elevation by exercise &c. Whilst recognising its action on the amœboid movements of the white blood-corpuscles, as shown by Cohnheim, Binz, and others, he does not regard this as of great importance.

In an able analysis of the various forms of malarial fever, and the teachings of experience as to the value of quinine in each, he concludes that the drug cannot be regarded as a specific or counter-poison—as (1) it does not prevent malarial poisoning when taken as a prophylactic; (2) it does not prevent recurrence after a variable period; and (3) it is useless in some of the most fatal forms, especially where the fever tends to assume a continued type. Moreover, he points out that in other fevers which present the characters of periodicity and the occurrence of initial rigor —e.g., urethral fever from catheterism,—quinine has an equally beneficial effect. He believes that the effect of quinine in ague is due to its threefold action, exerted chiefly during the period of rigor: by its action on the heart, it diminishes its frequency and force; on the peripheral arteries, it lowers their tension and produces dilatation; on the spinal cord and vasomotor centres, acting as a sedative, it tends to diminish their excitability; and, lastly, it exerts a direct cooling action on the system generally;—the latter, however, being the least important factor.

In acute rheumatism, M. Sée considers it by far the most valuable medicine; and states that he always returns to it with benefit after the trial of all other methods of treatment. Here, again, he sees in its physiological action the most precise indications for its use. Especially in its effect on the spinal cord—in lowering its irritability, and thus diminishing the sensibility to pain; and lessening reflex excitability, and thus reducing irritation and the afflux of blood to the inflamed joints—does he consider that its value lies, its action on the vascular system and in lowering temperature being also beneficial. The dose which M. Sée recommends is from ½ to 1½ grammes (or 8 to 24 grains nearly) in the day; increasing it, however, to 2 or 3 grms., or even more if needful. It may be mentioned that this mode of treatment is adopted by a large number of the leading physicians in Paris, either exclusively or with other means; and they all appear to be unanimous in its favour. It is only in the acute stages that M. Sée considers it beneficial, except for the relief of pain; and in this respect it is also useful in gout.

HARBOUR DUES VERSUS HEALTH.

SOME four or five years ago Dr. Dickson, R.N., Medical Inspector of Her Majesty's Customs, and Mr. Harry Leach, were requested by the Board of Trade to report upon the sanitary effects of using as ballast tidal mud or "caddy" from the seaboard in or near ports in the West Indies. The report, which gave special reasons for strongly condemning the practice, was inserted as a circular in the Code of Supplementary Instructions to Shipping Masters, and certain rules as to the avoidance of yellow fever were issued by the Board, and inserted in the official Medical Guide. We observe, however, in the *Shipping Gazette* of the 31st ult. an important reference to this subject, wherein it is complained that all vessels coming home ballasted with anything marketable are treated as cargo ships, and have to pay dues accordingly. Lloyd's agent at Belize in British Honduras asserts that all vessels arriving from Colon in ballast have more or less sickness on board. This sickness does not exist when the vessel is discharging her cargo at Colon, but commences some few days after she has put to sea in ballast. It appears upon further inquiry that this ballast commonly consists of a mixture of sand, mud, and bones. As a large number of British colliers now discharge at Colon, and are compelled to return home or go elsewhere in ballast, the sanitary aspects of the matter are serious. Clean ballast, as wood, pebbles, or broken stone, can be got for next to nothing, but shipmasters will not take these articles because they are subject to duty, and prefer to run the risk of working with a sick crew. It is plain, indeed, that in this as in other instances fiscal and sanitary interests clash, and it is next to useless to issue cautionary notices as to the latter, unless they are so framed as to work in harmony with the former. Health should never be pitted against wealth on even terms, or it will always go to the wall.

THE CALCUTTA MEDICAL COLLEGE.

THE Indian journals contain a long report of the proceedings by which the opening of the fortieth session of this College was celebrated on the 14th June last. The Bishop of Calcutta presided on the occasion, when a *Sunnud* was presented, conferring the title of Rai Bahadoor on first grade assistant-surgeon Jadub Chunder Ghose, deputy superintendent of vaccination, metropolitan circles, and a distribution of prizes, among which was one instituted by the Duke of Edinburgh, took place. Dr. Chevers, surgeon-major, Dr. Charles, and others took part in the proceedings. The growth of this institution since its foundation in Lord William Bentinck's time, has been very remarkable, and it is scarcely possible to over-estimate the amount of good of which it has been the parent. It has, in reality, become a great school. In 1860 the number of students was 435, and is now upwards of 1400, so that the strength of the school having outgrown its capacities for clinical instruction, it has become necessary to detach some sections of the students to other hospitals, and to set about providing additional accommodation, especially in the shape of class-rooms, laboratories, and dissecting-rooms. Our contemporary, the *Indian Medical Gazette*, speaks of the number of students assembled of late years in the Medical College as constituting monster classes; and the principal, in his report alluding to the absolute necessity that exists for more accommodation, declares the

number of paying students to have amounted to 1076. The College authorities may well be congratulated on the evidence thus afforded of the increased popularity and utility of medical education and practice in Bengal. Among the benefits conferred on India under British rule, there are none to which the next historian of India will be able to point with greater pride than those which have been accomplished by members of the medical profession serving in that country, and it is to us a matter of surprise and regret that the Indian Government should fail to mark its appreciation of these great and enduring services. If it is right and fitting, as it undoubtedly is, to confer honours and distinctions on natives, it seems to us to be still more incumbent on the Government to see that services such as those which Dr. Chevers, for example, has rendered in the cause of medical science and education should not go unrewarded.

THE AUTOMATIC MAN.

A PARAGRAPH with this heading has been going the round of the daily papers, copied from *Galignani*, which there can be little doubt is substantially accurate, and is interesting as showing the necessity, when the will is in abeyance, for a guiding sensation, to start automatic or secondarily automatic acts, and also as showing how, when once started, they are continued without more than sensory guidance, one action leading on to the next, though the patient shows himself incapable of beginning the series. The patient, who was a singer at the Cafés Chantants, was struck over the left ear by a musket bullet, which carried off about two and a half inches of the parietal bone, and laid bare the brain on the left side. This led to a temporary paralysis of the members on the opposite side, as is always the case; but he was eventually cured of this, while the tremendous wound on the skull began to heal, so that after a time he could resume his professional duties at the cafés to the satisfaction of the public. Suddenly, however, he was seized with nervous symptoms, lasting from twenty-four to forty-eight hours, and of such an extraordinary nature that it was considered proper to take him to the hospital. His malady is easier to illustrate by examples than to define. When he is in his fit he has no sensitiveness of his own, and will bear physical pain without being aware of it; but his will may be influenced by contact with exterior objects. Set him on his feet, and, as soon as they touch the ground, they awaken in him the desire of walking; he then marches straight on quite steadily, with fixed eyes, without saying a word, or knowing what is going on about him. If he meets with an obstacle on his way he will touch it, and try to make out by feeling what it is, and then attempt to get out of its way. If several persons join hands and form a ring around him, he will try to find an opening by repeatedly crossing over from one side to the other, and this without betraying the slightest consciousness or impatience. Put a pen into his hand; this will instantly awaken in him a desire of writing; he will fumble about for ink and paper, and, if these be placed before him, he will write a very sensible business letter; but, when the fit is over, he will recollect nothing at all about it. Give him some cigarette paper, and he will instantly take out his tobacco-bag, roll a cigarette very cleverly, and light it with a match from his own box. Put them out one after another, he will try from first to last to get a light, and put up in the end with his ill-success. But ignite a match yourself, and give it him, he will not use it, and let it burn between his fingers. Fill his tobacco-bag with anything, no matter what—shavings, cotton, lint, hay, &c., he will roll his cigarette just the same, light and smoke it without perceiving the hoax. But, better still, put a pair of gloves into his hand and he will put them on at once; this, reminding him of his profession, will make him look for his music. A roll of paper is then given to him, upon which he assumes the attitude of a singer before the public, and warbles some piece of his repertory. If you place yourself before him he will feel about on your person, and, meeting with your watch, he will transfer it from your pocket to his own; but, on the other hand, he will allow you, without any resistance or impatience whatever, to take it back again.

THE PRIESTLEY MEMORIAL.

PROF. HUXLEY rose to his theme—and a congenial one it was—on the 1st inst., when Birmingham performed an act of retributive justice in the erection of a monument to the discoverer of oxygen. Priestley's services to science, however, were not the main subject of Prof. Huxley's eulogy; indeed he omitted all mention of contributions to physics and chemistry with which Priestley's name is as honourably identified as with the discovery of oxygen. It was his intrepidity in the cause of freedom, civil and religious, that evoked Prof. Huxley's warmest encomiums, and roused him to an eloquence rare even for him. The fruits of Priestley's self-sacrifice it has been left for more recent generations to reap: the moral air we breathe has been so purged of intolerance that we can scarcely appreciate the revolution in thought and opinion which the philosopher achieved. In expatiating on this theme, Prof. Huxley was most characteristic, casting many a side glance at the traces of fanaticism still surviving, and many a broad hint at the quarters in which Priestley's work has yet to be carried on. His audience was in all respects congenial; and, on points of education, religion, and political opinion, found an interpreter as sympathetic and outspoken as the *genius loci* itself could have produced. At Leeds, the birthplace of the philosopher, addresses on the incident of the day were delivered by Dr. Clifford Allbutt, and others of the local medical school; while in Paris M. Wilfrid de Fonvielle gave a Frenchman's tribute to the English vindicator of the revolution of '89. Priestley, in fact, was, if not the discoverer, at least the diffusor, of a "moral oxygen" not less essential to the growth of the mind than its physical counterpart is to the well-being of the bodily frame.

THE DIAGNOSIS OF BLOOD-STAINS.

THE generally received opinion that the microscope is of little or no service in discriminating between the blood-corpuscles of man and the common mammalian animals would seem to be refuted by some recent investigations of Dr. Joseph G. Richardson, Lecturer on Pathological Anatomy in the University of Pennsylvania and Microscopist to the Pennsylvania Hospital. In his investigations Dr. Richardson employed a far higher power of the microscope than has hitherto been used in the investigation of blood-stains. He worked with $\frac{1}{1\,5}$ immersion lens (giving an amplification of 1250 diameters), and with this high power he has been uniformly successful in discriminating between the blood of man, the ox, and the sheep.

The specimens of blood were prepared for him by two scientific friends, and were submitted to him as a riddle which he was required to solve, the specimens of blood being merely designated by a number.

The stains were broken up into fine dust with a sharp knife, placed upon slides, and covered with a film of thin glass. A few drops of the ordinary three-quarter of one per cent. solution of common salt were then successively introduced at one margin of the cover, and removed from the opposite edge as they penetrated thither by a little slip

of blotting-paper, thus washing away the colouring matter from the tiny masses of dried clot. When these particles were nearly decolorised, a drop of aniline solution was allowed to flow in beneath the cover, and, after remaining about half a minute, was in its turn washed away, and its place supplied by a further portion of weak salt solution. Examined under the high power, and ten consecutive corpuscles from each stain being measured with a cobweb micrometer, the following results were obtained:—

In the first specimen the maximum size of the corpuscles was $\frac{1}{3125}$ inch, the minimum $\frac{1}{3125}$, and the mean of the ten $\frac{1}{3125}$ inch in diameter. In the second specimen the maximum was $\frac{1}{3125}$, the minimum $\frac{1}{3125}$, and the mean of the ten $\frac{1}{3125}$ inch. In the third specimen the maximum was $\frac{1}{3125}$, the minimum $\frac{1}{3125}$, and the mean of the ten $\frac{1}{3125}$ inch.

From these measurements Dr. Richardson rightly concluded that the first specimen was human blood, the second ox blood, and the third sheep's blood.

A second experiment made under the same conditions gave similar results, and enabled Dr. Richardson to discriminate rightly. In this experiment the mean diameters of human, ox, and sheep's blood-corpuscles were found to be $\frac{1}{3125}$, $\frac{1}{3125}$, and $\frac{1}{3125}$.

Dr Richardson has thus, it would seem, made a valuable addition to forensic medicine; and we shall be interested to hear what results are obtained by other investigators who may use the high powers of the microscope for a similar purpose.

ELECTION OF MEDICAL OFFICERS TO PUBLIC INSTITUTIONS.

IT has been from time to time our duty to comment upon the vicious method adopted by many hospitals of filling up vacancies on their staff of medical officers. The system which leaves the selection of a medical man to fill the important post of physician or surgeon to a hospital in the hands of the governors at large is fraught with danger to the institution, and not seldom brings discredit on our profession. The danger to the institution arises from this cause, that no sooner is a vacancy declared—in some instances that we know of *before* the vacancy exists—than the governors are inundated with all sorts of testimonials, from all sorts of men, setting forth the varied attainments and perfections of the candidates. The issue of these testimonials is immediately followed up by an active canvass, not only by the candidates themselves, but by their immediate friends and acquaintances. Now it is often the case that a man's professional attainments are in the inverse ratio to his activity in canvassing. But this very activity will secure him his election over the heads of more modest and retiring men, who, nevertheless, possess far higher professional claims to the position. The ugly rush after hospital appointments is in itself not commendable. But the cap-in-hand canvass, with all its little mean arts and dodges, is detestable.

Feeling all this, it is with no little pleasure that we find the Managing Committee of the Royal Albert Hospital at Devonport devising a more excellent way. The lamented death of Dr. Wilson, one of the junior surgeons, has made a vacancy on the staff, and the Managing Committee are about to propose the following plan of election to the governors:—

"The Managing Committee shall from time to time choose by ballot three from their own body; the Medical Staff shall choose by ballot three from their body; and the six so appointed shall act with the three governors named under Rule 53 as the Selection Committee. (The three governors to be elected annually not being members of the Managing Committee.)

"The Selection Committee shall from time to time, as and when necessary, invite applications from candidates for any medical or surgical appointment that may require to be made or filled up.

"The Selection Committee shall examine the testimonials and qualifications of all candidates, and shall make such appointment as they or not less two-thirds of their entire body shall think fit.

"Every appointment so made shall be reported under the hands of the persons making the same to the next special or general meeting of governors."

There can be little doubt that the governors, in adopting this plan, will secure the services of a competent officer for their hospital.

CHARGE OF MANSLAUGHTER AGAINST A SURGEON.

OUR readers will remember that some weeks ago we gave the outline of a very painful case in which an inquest was held on the body of Mrs. Ann Woodward, who died in childbirth under the following circumstances:—She was attended by Mr. Edwin Peacock, surgeon, of Chilvers Coton, near Nuneaton, who had attended her in two or three previous confinements, in the last of which he had to use instruments. On the present occasion instruments were also used. The medical evidence at the inquest showed that a large portion of intestine—about fifteen feet—had been removed through a rent in the vagina. A good deal of the large intestine was included. They had evidently been cut through. The woman died about two hours after delivery. The jury acquitted the surgeon of blame, chiefly on the ground of the evidence given by Dr. Barnes, Mr. John Clay (of Birmingham), and others; but the verdict gave rise to so much dissatisfaction that the Government decided to prosecute Mr. Peacock on the charge of manslaughter. The case was opened at the Atherstone Police-court on Tuesday, and the proceedings were adjourned to October 9th. We cannot too strongly protest against such a break in an inquiry of intense moment to Mr. Peacock, and we hope the magistrates will reconsider their arrangements, and come to a finding on the case without a day's unnecessary delay. In the meantime of course all comment on our part would be out of place. It is pleasant to remember that Mr. Peacock's experience in midwifery had been exceptionally good; and that Prof. Clay, of Birmingham, said he had passed a very high examination in midwifery in Queen's College, and that the paper written by him was the best that, in the course of ten or twelve years, he (Prof. Clay) had ever seen.

HOSPITAL CONSTRUCTION.

AMONG the articles contained in the last annual report of the State Board of Health of Massachusetts is one "On Hospitals," by Dr. George Derby, the secretary of the Board, the object of which is to show generally that the restoration of the sick to health is best accomplished in hospitals of a simple and inexpensive construction, and specially to point out the great advantages which would accrue from building hospitals of a height of one storey and no more, with wards completely detached from one another. Dr. Derby very succinctly reviews the labours of recent hospital reformers, and those of Captain Galton among the number, who has, in the opinion of the Secretary to the Massachusetts Board, just stopped short of what seems to him to be the essential reform of the future. The medical staff of the United States army, during their late war, had an opportunity of trying every possible form of hospital and finally, as the result of all the improvised means of sheltering those disabled by sickness or wounds, there was gradually formed a system of hospital construction of which the distinguishing features are—first, buildings of one

storey; secondly, ventilation in summer directly through the ridge in its whole length, and in winter by wooden shafts warmed by the smoke-pipe of the heating apparatus, whatever it might be, and leading straight through the roof. They were detached pavilions, and freely exposed to air and light, but in these respects they can claim no originality. The American war experience has been very generally followed, and the opinions of the German and French surgeons seem to be in accord with those of the United States. Dr. Derby thinks that many of the difficulties which have occasioned no little controversy and book-making would disappear if the plan of detached one-storeyed wards were adopted. The difficulties attending a hospital arranged on this plan would be that greater ground space—a very expensive matter—would be required, and the cost of administration, warming, and hospital service would be increased; while, on the other hand, the original cost of construction of hospitals, void of architectural designs, would be much less.

THE COLLEGE OF PHYSICIANS.

A MEETING of the College of Physicians was held on Wednesday, for the purpose of admitting in due form to the College the fellows elected at its last meeting, and of whom a list has already been given.

Dr. Munk called attention to a portrait of the late Dr. Elliotson, which has been sent for the acceptance of the College by Miss Elliotson. The College accepted the gift, and desired Dr. Munk to convey to the donor its warm thanks for so acceptable an addition to its portrait gallery. The likeness, which represents Dr. Elliotson at the age of about forty-five, is pronounced by those who knew him best to be an excellent one. Dr. Pitman presented from Dr. Jelly, of Madrid, an old member of the College, a curious surgeon-barber's shaving and bleeding dish, in Talavera ware, fit for Sangrado himself. Dr. Pitman gave notice of a motion to place the newly-elected fellows upon the College list according to their seniority of membership, and not the somewhat accidental order in which they might have been actually admitted to a seat at the fellows' table; but he stated that he would so word it that this regulation should only operate upon the batch of fellows made in any given year.

THE ACINOUS GLANDS AND THEIR RELATION TO THE TASTE.

V. EBNER, in a pamphlet published at Gratz, states that researches on the structure and disposition of the peculiar terminations of the gustatory nerves, christened by Lovén and Schwelbe gustatory bulbs, satisfied him that acinous glands are present in the vicinity of the papillæ circumvallatæ and foliatæ, which differ from the other mucous glands of the root of the tongue in resembling the submaxillary gland in structure and in their secretion being free from mucus. He terms them, as Heidenhain had already called similar glands in the respiratory region of the Schneiderian membrane, which likewise secreted no mucus, *serous glands*. The glands are well marked in the tongue of the guinea-pig. Unlike other rodents, the guinea-pig has no papillæ circumvallatæ, but a kind of foliated plate. True foliated plates are found at the margin of the tongue. The excretory ducts which open near the gustatory bulbs are lined by a single layer of flattened epithelium, which in the alveoli of the gland become more rounded or columnar, and narrow the lumen of the tube. They possess a nucleus with nucleolus, and consist chiefly of albumen without any mucin, and consequently resemble those of the pancreas and parotid glands. V. Ebner gives a minute account of the papillæ foliatæ of man, which he describes as consisting of a series of irregular elevations of the mucous membrane, which collectively are sometimes as much as a quarter of an inch in length, and nearly one-third that breadth. The serous glands of the human tongue are, as in other mammals, limited to the vicinity of the papillæ foliatæ and vallatæ, and agree with them in structure.

THE DUBLIN SANITARY ASSOCIATION.

THE committee of the Dublin Sanitary Association have just issued a report of the work performed in the city during the past year under the auspices of the Association. It now consists of 251 members, of which ten are ladies. As the object of the Association is one in which ladies are deeply interested, the committee express a hope that the current year will show a considerable augmentation of female members. It is impossible to peruse the report without coming to the conclusion that the Association is very much in earnest in its endeavours to remedy palpable evils and improve the health of the city. It appears that during the whole of the past winter and spring a serious epidemic of scarlatina prevailed, causing a weekly average of 12·6 deaths for a period of thirty-six weeks. A set of printed suggestions for the prevention of one of the most insidious diseases medical practitioners have to encounter was drawn up and distributed throughout the poorer urban districts. A floating cholera hospital was constructed and moored in the Liffey in view of an apprehended visitation of cholera. Weekly reports of nuisances were regularly collected, and in all 519 such cases were dealt with. We incidentally learn that a sanitary association has been established in Cork, the executive of which is in direct correspondence with the Dublin Association. We should not omit to notice the valuable aid rendered in the cause of hygiene by the *Freeman's Journal*, which published a series of articles supplementing the efforts of the Association.

INFECTIOUS DISEASES IN HOSPITAL WARDS.

IN our remarks made last week on the impropriety of admitting patients suffering from infectious diseases into general wards of hospitals, we referred to numerous instances of typhus fever spreading from a single patient through the general wards of some hospitals. Curiously enough, quite recently a case of typhus was admitted into Middlesex Hospital. Since then two nurses have taken the disease, and one has died, while the other is now convalescent in the Fever Hospital. It is only just, however, to observe that the nature of the case was not evident on admission, and that as soon as symptoms of typhus declared themselves, the patient, who was too ill to be removed out of the hospital, was placed in an isolated ward under the care of two nurses who had already had the disease. These nurses attended only on the typhus patient, while the nurse who died was in no way associated with the patient, and may not have contracted the disease therefrom.

BOMBAY MEDICAL RETIRING FUND.

SOME months ago we directed attention to a matter gravely affecting the interests of an officer of the Indian Medical Service and of members of the Bombay Medical Retiring Fund. Our readers may remember that Surgeon-Major Dr. J. Y. Smith claimed the highest rate of annuity from this fund, and that his claim had been disallowed by the late Secretary of State for India for reasons which seemed to us at variance with the regulations; and we suggested that it might be well to memorialise the present Minister for India on a subject concerning which his predecessor in office had been badly instructed. We are glad

to learn that the Marquis of Salisbury has recently given his decision on this subject, and that it is favourable to Surgeon-Major Dr. Smith's claim. From a copy of his Lordship's official communication of May last we gather that, the regulations being open to the construction placed upon them by Surgeon-Major Smith, the Minister for India thought it necessary to obtain "legal opinion on the subject; and that opinion being that Dr. Smith, having completed twenty-eight years' service and served the regulated period in India qualifying for the lowest Government pension, has fulfilled the only conditions required by the rules to entitle him to the highest of the three annuities granted from the fund, I have decided that subscribers shall no longer be required to complete the periods of service in India qualifying for the Government pensions referred to in Clauses 2 and 3 of Article 4, Section 5, of the Rules, to entitle them to the annuities of £210 and £252 respectively; and the members of the fund should be informed accordingly."

THE CONSOLIDATION OF THE SANITARY LAW.

LORD WALSINGHAM, on moving the second reading of the Sanitary Acts Amendment Bill in the House of Lords, took occasion to observe that the Local Government Board had long contemplated a complete consolidation of the Sanitary Law, but until the general provisions of the law had been ascertained and fixed it was felt that such consolidation would be premature, and the present Bill might be considered as a necessary step towards it. Lord Redesdale expressed his gratification that this should be the case, as nothing was more wanted than a consolidation of the Sanitary Laws. He had doubts, however, that the Bill would tend much in that direction. It would, he said, be one Bill the more, in addition to the many others which must be included in any scheme of codification. Earl Fortescue concurred with Lord Redesdale in the necessity for the consolidation spoken of, and hoped that a measure to this effect might be expected next session. The Duke of Richmond, while agreeing with Lord Redesdale and Earl Fortescue as to the need for consolidation of the sanitary laws, would not, however, undertake that the Government would prepare a Bill having that object during the ensuing recess.

EDINBURGH UNIVERSITY CLUB.

ON Saturday, the 1st inst., the Edinburgh University Club held its quarterly dinner in St. James's Hall. There was a good attendance, the chair being taken by Dr. Spencer Cobbold. Saturday being Capping-day in Edinburgh, congratulatory telegrams were exchanged in the course of the evening between Professor Balfour, on the part of the newly-fledged graduates, and the Club. Sir Bartle Frere acknowledged the toast of "the Visitors," while the satisfactory announcement was made by the President that not only was the club in a thriving condition, but that a similar confraternity of Edinburgh graduates had been instituted under influential auspices at Manchester.

THE RIGHT TO CHARGE FOR A PRESCRIPTION.

THE question of this right has been raised in the County Court of Lichfield by Mr. C. E. E. Welchman, M.R.C.S. Eng. The case is reported in the *Staffordshire Advertiser* of July 18th. The case was rather spoiled for the purpose of settling this question, on the ground that the case being a medical one, and Mr. Welchman's qualification being only surgical in its character, he had not the power of recovery. But there can be no doubt that a practitioner is entitled to be paid for a prescription, and paid reasonably well. It is generally a prescription of tested value, that is to be used in future *in loco medici*. And such a service is eminently entitled to be considered in making "reasonable charges for professional aid and advice." Even physicians may recover their fees under the clause of the Act containing these words, in the absence of any bye-law of their College forbidding them to sue in a court of law. The attempt on the part of a patient to get possession of a prescription to be used on future occasions without paying for it is not very creditable to his generosity or sense of fairness.

PORT SANITARY WORK.

MR. WILLIAM JAMES SCOTT, the acting chairman, and the members of the Port Sanitary Committee of the Corporation of London, made an inspection of this district on Friday, the 31st ult. They were accompanied by Mr. J. N. Radcliffe, representing the Medical Department of the Local Government Board, Mr. Harry Leach, the port medical officer, Dr. Sedgwick Saunders, medical officer for the City, Mr. N. H. Pink, medical officer for Greenwich, Mr. Johnson Smith, surgeon to the Seamen's Hospital, the Town Clerk, and many of the chairmen of committees and other members of the Corporation. The route taken was from London Bridge to Gravesend, and the committee having visited the school ship *Goliath*, and afterwards the hospital ship, *Rhin* (over which they were escorted by Dr. Whitcombe), dined at Gravesend. We are glad to know that the Corporation of London have increased very much their sphere of usefulness by becoming the sanitary authority of the largest and busiest port in the United Kingdom, indicating, as it does, great responsibilities.

MISSIONARY MEDICINE AND THE CHINESE.

DR. DUDGEON, in the annual report of the Peking Hospital for 1873, in connexion with the London Missionary Society, says that the past year has been one of continued success. The entire number of patients prescribed for was 18,300. The number of in-patients was relatively small, and chiefly composed of those requiring some surgical interference; but the influence of the hospital is yearly extending, and its connexion with the higher and official classes has been steadily increasing year by year. The report of the cure of remarkable cases, or cases occurring in well-known individuals, spreads far and wide, and the impression thus produced has tended to make the benefits of the hospital known among all classes, and to remove prejudices arising from ignorance and superstition. A lectureship on anatomy and physiology in connexion with the present college has, moreover, brought Dr. Dudgeon into close contact, professionally and otherwise, with the highest officials of the Government. The cure of disease and the relief of suffering form the best pioneers of religion and civilisation.

A BOY ATTACKED BY A LEOPARD AT THE ZOOLOGICAL GARDENS.

AT the Gardens on Tuesday afternoon, a boy, nine years of age, in order to escape a shower of rain, sought shelter under the shade in front of the leopard's cage. This intrusion was evidently unwelcome to the leopard, which, passing its paws through the bars of the cage, caught the boy, and severely tore him about the scalp and face with its claws. Fortunately the keeper was at hand, and rescued the lad by dealing severe blows on the leopard's head, thus making it release its hold. The boy was at once removed to University College Hospital, where he was admitted and attended to by the house-surgeon, Mr. Maclean. Some of the scalp wounds were long, and extended down

to the bone, but so far the patient is progressing favourably, no signs of inflammation or serious mischief having declared themselves.

CLINIQUE OF MENTAL DISEASES IN PARIS.

THE Council General of the department of the Seine lately held its opening meeting, and this opportunity was seized by Dr. Loiseau for putting to the Prefect (the administrative head of the department) some questions respecting the suppression of the clinical courses in the Paris asylums. The Prefect contended that it was not proper to subject insane patients to the gaze of professors and pupils; that the secret of their complaints had been confided to the authorities, and that the latter could not think of divulging it. He flatly refused to allow the clinical teaching to be resumed. Messrs. Depaul, Trélat, and Loiseau retorted that the most scrupulous kindness was paid to the p tients, and that neither humanity nor secrecy was disregarded by teachers and pupils. In fact, Dr. Depaul confidently stated that before 50 years were passed the clinical would be the only mode of teaching in the whole range of medicine.

DEATH FROM CHLOROFORM.

WE have this week to record another death from chloroform which occurred a few days back in the Woolwich Workhouse Infirmary. The victim was a young servant girl, who, while in service ran a pin into the back of her hand. She went into the infirmary with a view of having the pin extracted, and expressed a wish of being placed under the influence of chloroform during the operation. Dr. Lloyd, the house-surgeon, in the presence of two nurses, administered the drug and took out the pin. Fatal symptoms immediately set in and the girl died. A post-mortem examination, made by three medical men including Dr. Lloyd, revealed the existence of fatty degeneration of the heart. This organ was also described as very flabby. At the inquest the jury returned the usual verdict, and appended to it a rider insisting on the desirability of a second practitioner being present whenever chloroform was administered to inmates of the infirmary. We heartily approve of the recommendation of the jury. Of course it frequently happens in country practice that a surgeon is compelled to give chloroform alone and unassisted, but in the case of public institutions there cannot be any difficulty in securing the assistance of a professional brother.

THE MANCHESTER AND SALFORD PROVIDENT SCHEME.

THIS great scheme seems still to exist only on paper. Another circular has just been issued by the promoters, explaining the principles and asking for funds. Nothing actual seems to be yet accomplished. We confess to some disappointment at the slow progress of this great experiment. It is proposed, say the promoters, to form a guarantee fund of £1000 a year for three years. But surely this fund should have been raised by this time in Manchester after the amount of agreement that was announced months ago among the charities.

THE CHOLERA.

WE learn that cholera has assumed an epidemic character in numerous localities of Prussian Silesia, and that the Austrian Ministry of Commerce has instructed the different railway companies whose lines cross the Prussian frontier to take necessary precautions, adopted on previous occasions, for dealing with transmission of the disease along the lines.

ACCORDING to the Registrar-General's report, it appears that during the quarter ending June 30th the registered births in England and Wales exceeded the deaths by 93,615. These data are satisfactory as proving the nation's vitality and physical integrity. The period of our decadence, so much insisted on of late, must still be very remote. Scarlatina was the most fatal of the zymotic diseases during the quarter, causing 4635 deaths. Measles was accredited with 3723 deaths. The malignancy which the latter disease has exhibited recently is a source of serious reflection. It is becoming high time that parents should be disabused of the mistaken notion which seems to be universally prevalent of the benign nature of the complaint. The mortality attributable to whooping-cough—viz., 2560 deaths—also strikes us as being excessive. Altogether, the death-rate during the quarter was indubitably heavy.

AN instance of atrocious cruelty has gone the round of the papers within the last few days. Six colliers broke into a house occupied by a man named McGrath, over eighty years of age. They knocked the poor man's eye out, and forced a quantity of slacked lime down his throat. The empty socket of his eye was then filled with the same material, and finally a bucketful of the slacked lime was emptied on McGrath. His wife was then savagely kicked and beaten. The man is by the latest accounts totally blind. The ruffianly perpetrators of the outrage are in custody, and we hope that the measure of justice meted out to them will not be tempered with mercy.

WE were sorry to observe that a summons against an *employé* of a man, who calls himself Du Brange, for distributing bills—concerning the nature of which there cannot be any doubt—in Oxford-street was dismissed. At the same time, Mr. Knox distinctly expressed his opinion that legal enactments were required to prevent the circulation of such papers, a trade which he stigmatised as very disgraceful and an offence against morals. Finally, he suggested that Mr. Secretary Cross should be communicated with on the subject. Pending an alteration in the law, we presume the distribution of the offending pamphlets will be continued.

WE have received a copy of Dr. Hill's report of the health of Birmingham for the quarter ending July 4th. It is short, but to the point. Our Birmingham correspondent has kept our readers so well informed of the sanitary condition of the town that a detailed notice of Dr. Hill's report is not necessary. Small-pox was very prevalent and fatal during the quarter, the total number of cases recorded amounting to 1303, with a mortality of 196 deaths. Dr. Hill complains that although he earnestly urged the necessity of universal revaccination, his recommendations were for a long time entirely disregarded.

THE Islington Guardians are desirous of introducing into Parliament a Bill to enable parochial bodies to recover from fathers of illegitimate children the cost of the maintenance of the mother in the workhouse during confinement. Fresh legislation is clearly wanted in this direction, and we do not see why Parliament should not pass a measure such as that proposed. We were surprised to find that the Local Government Board, on being communicated with in the matter, threw cold water on the scheme.

AFTER a fierce and protracted struggle between Gwydyr House and the Hackney guardians, the entire separation of the workhouse from the infirmary of the parish is now a *fait accompli*. The guardians have by no means borne their defeat with equanimity, although acknowledging that further resistance would have been futile.

THERE would appear to be some agencies at work inimical to the maintenance of a low death-rate at that delightful watering-place, Llandudno, North Wales. Dr. Nichol, medical officer of health for the town, in a report just issued, has to regret the increased mortality which was evidenced during the past year. A higher authority—the Registrar-General,—who has formulated a scale of the respective salubrity of some of our summer resorts, places Llandudno at the bottom of the list. Satisfactory results are, however, anticipated when the extensive sanitary improvements undertaken in the town are completed.

A HIGHLY interesting lecture on extinct animals was delivered on Saturday last at the British Museum, before an audience chiefly composed of working men, by Professor Owen, the distinguished naturalist whom the medical profession has always delighted to honour. It would be rather out of our province to give even a *résumé* of the lecture. Suffice it to say that it was worthy of the first living authority on the subject of which it treated. Professor Owen has done, perhaps, more than any one in Europe in directing inquiry and research into that domain in which he reigns supreme.

THE proposition recently made by some members of the Town Council of Tynemouth, that the corporation should take steps to get the water-supply of the borough into their own hands, has, unfortunately, for the present at least, fallen through. The failure appears to be owing partly to the belief of some of the town councillors that the proposed change of ownership of the works would not secure for the townspeople a better supply of water, and partly to some difficulty which it is expected would attend the transfer, arising from the Duke of Northumberland's interest in the water company.

IN charging the grand jury at the Leeds Assizes this week, when he had to try a large number of cases of manslaughter, Mr. Justice Denman painted in strong colours the recklessness and disregard for human life produced by excessive indulgence in alcoholic fluids. He was hopeful that the numerous instances of manslaughter arising from drunkenness lately recorded would open the eyes of the working man to the terrible evils of intemperance. At a recent Liverpool assize, there were 13 offences of violence for trial, all being distinctly attributable to drink.

THE Irish Local Government Board, in their report just issued, call attention to an abuse which is most complained of by medical officers of the unions—the use of the dispensaries by persons whose circumstances do not justify any participation in the benefits of the Medical Charities Act. The dispensary committees have power to cancel tickets presented by such persons, and we are glad to find that in Ulster they have exercised their authority in 270 cases.

OUR contemporary, the *Garden*, suggests that many of the old city churchyards might easily be converted into beautiful gardens, full of flowering shrubs and sweet-scented blossoms, adding not only to the attractiveness, but to the salubrity of these gloomy, not to say pestilent, old spaces. The difficulties of gardening in the city, it says, are quite imaginary.

THE sanitary condition of Berlin must by this time have forced itself on the consideration of the German Government. The weekly bills of mortality continue to increase alarmingly. By the last returns the death-rate had reached the enormous figure of 57 per 1000, 67 per cent. of the deaths being of infants under one year of age.

IN reply to a question from Dr. Lyon Playfair, Mr. Sclater-Booth stated that he intended shortly to submit to Government some further legislation on the pollution of rivers, founded on the recommendations of the Commission, which from time to time issued valuable reports. The Commission, which was appointed in 1865, will shortly issue its last report.

AN outbreak of enteric fever is reported from Clayton West, near Huddersfield. The subject was this week brought before the notice of Parliament, and we have no doubt that by this time an inspector from the Local Government Board has visited the locality, and reported on the epidemic.

THE charge of polluting the water of the Regent's Canal with the animal refuse of the Zoological Gardens has been disproved. Little more than surface-water flows from the Gardens into the Canal, and this surface-water was, on analysis, found to be purer than that of the Canal itself.

THE Conference of the Pharmaceutical Society, which is taking place this week, was ushered in on Wednesday evening by a *conversazione*, and on Thursday by a dinner at the Cannon-street Hotel. We shall next week give a report of some of the proceedings of the Conference.

IN London last week there were registered 1651 deaths, including 2 from small-pox, 14 from measles, 41 from scarlet fever, 8 from diphtheria, 14 from whooping-cough, 27 from different forms of fever, and 365 from diarrhœa.

THE authorities at Manchester have given notice that in consequence of the scarcity of water none will be supplied between six at night and six in the morning.

AN able and indefatigable explorer has just been lost to geographical science in Dr. Charles T. Beke, who died in his seventy-fourth year on the 26th ult.

WE are informed that there is a considerable number of candidates for the competitive examination of both the Indian and British Medical Services.

DR. FUSSELL, medical officer of health for Eastbourne reports this week very favourably of the sanitary condition of the town.

THE INTERNATIONAL SANITARY CONFERENCE.

OUR anticipation that the sittings of the International Conference would not occupy much space of time has been verified by the result. The Conference held its first meeting on the 1st ult., and its last on the 31st ult. On Friday last, in fact, it terminated its sittings, having completed the business it was appointed to carry out within the reasonable (and, as compared with the time occupied by the Conferences of 1851 and 1866, the remarkably short) period of one calendar month.

Until we have the proceedings of the Conference in a completed state before us, it would be premature to attempt to estimate the results of its deliberations. The rapidity with which the Conference has proceeded with its work has not enabled the printing and correcting of its proceedings to keep pace fully with it. We shall, therefore, pending the formal issue of the proceedings, simply continue our chronicle of the discussions.

We have already touched upon some of the questions upon which the Conference was unanimous. Other ques-

tions on which also unanimity of opinion existed were the following:—The conclusion of the Constantinople Conference, that although it was not proved conclusively that the bodies of the dead from cholera can transmit cholera, it was prudent to consider them dangerous, was accepted. So also were accepted the conclusions of the same Conference as to the propagation of cholera through the air, and as to the influence of fresh air on the contagious character of cholera. On the first-named question the Conference of 1866 had concluded, that there is no evidence that cholera can be propagated to any distance by the atmosphere alone, in any state whatsoever that the atmosphere may be; and, moreover, that it is a law without exception that cholera is never propagated from one place to another in a shorter space of time than it takes man to travel. The surrounding air is the principal vehicle of the generative agent of cholera, but the transmission of the malady by the atmosphere, in the immense majority of cases, is limited to the close vicinity of the focus of emission. The facts cited of transmission by the atmosphere over many miles of distance are not trustworthy. On the second-named question the Conference of 1866 concluded that in free air the generative principle of cholera rapidly loses its morbific activity, but that in certain particular conditions of confinement this activity may be retained for an indeterminate time. Cholera can be transmitted by articles arriving from an infected place, particularly articles which have been used by cholera patients, and the malady may be carried to a distance by these effects, if shut up from contact with the air. Great deserts form a very effective barrier against the propagation of cholera, and it has never happened that this malady has been imported into Egypt and Syria, across the desert, by caravans leaving Mecca.

The question of duration of incubation of the contagion of cholera gave rise to a prolonged discussion; but in the end the conclusion of the Constantinople Conference was affirmed by 13 votes against 1 negative; 4 abstaining. This conclusion was to the effect that in nearly every case the period of incubation—that is to say, the time which elapses between the moment when an individual contracts the choleraic intoxication and the beginning of the premonitory diarrhœa or of confirmed cholera—does not overpass a few days. All the facts cited of more prolonged incubation are of cases which are not conclusive, or in which the premonitory diarrhœa has been comprised in the period of incubation, or in which the contamination has taken place after departure from the infected place. Observation proves that the duration of the choleraic diarrhœa called premonitory, and which is not to be confounded with other forms of diarrhœa which may exist in time of cholera, does not extend beyond a few days. The facts advanced as exceptional do not prove that protracted cases of diarrhœa belong to cholera, and are susceptible of transmitting the disease, when the affected individuals have been removed from every cause of contamination.

Exception was taken to the vagueness of this conclusion. Professor Pettenkofer objected especially to the narrow limitation of the period of incubation as expressed by the resolution, averring that "fifteen days" ought rather to be substituted for "a few days," although he admitted it was impossible to fix precisely a period, and stated that he should be unable to vote for an arbitrarily fixed time. The difficulty with the delegates who declined to accept the conclusion arose from the fact that it did not appear to include many well-known cases of development of cholera at intervals of fifteen days or longer after the persons attacked had left an infected locality. As the delegate for Roumania, Dr. Marcovitz, observed, as it was impossible to fix with certainty the moment of contamination, it was impossible to state with precision the maximum period of incubation; it was therefore prudent, as Professor Pettenkofer had suggested, to augment the number of days beyond the probable period so as to cover necessary prophylactic measures. This view, however, was not accepted, and the conclusion of the Conference in 1866 was accepted by the majority unaltered, Switzerland voting to the contrary, and Germany, Luxembourg, Roumania, and Sweden abstaining from voting.

On the question of disinfection in relation to cholera, some difference of opinion took place as to the precise value to be attached to the measure as a preventive. The want of agreement appeared to rest chiefly upon the results of various experiences, which could not be properly compared. Seemingly some of the delegates—even, strange to say, the German delegates—took their illustrations of the value of disinfectants in limiting or preventing cholera from instances where they had been used under conditions in which, in this country at least, marked benefit from them would never have been anticipated. Eventually a resolution was formulated, which was accepted by the Conference unanimously. This resolution was to the effect that "Science does not yet know any certain and specific means of disinfection, but the Conference recognises the great value of hygienic measures, such as ventilation, profuse washing, cleansing, &c., combined with the use of substances usually regarded as disinfectant." This is a very feeble version of the initial sentences of Mr. Simon's famous Memorandum of Disinfection—viz.:—"It is to cleanliness, ventilation, and drainage, and the use of perfectly pure drinking water, that populations ought mainly to look for safety against nuisance and infection. Artificial disinfectants cannot properly supply the place of those essentials," &c. This broad view of the question was obviously not present to the mind of some of the delegates who took part in the discussion.

On the question of land quarantines, as was to be expected, much discussion took place, and several propositions were submitted to the Conference. Eventually, a proposition submitted by one of the delegates for Austro-Hungary, Dr. Grosz, was adopted by thirteen votes against four, two abstaining. The proposition was as follows:—"Considering that the organisation of land quarantines is impracticable, and consequently useless, from the numerous and daily increasing means of communication; considering, also, that their establishment gravely injures commerce, it is proposed to answer in the negative the question whether land-quarantines should be adopted against cholera." The negative votes were France, Greece, Portugal, and Servia. Luxembourg and Switzerland abstained from voting.

We may anticipate a more detailed account of the discussions on river and maritime quarantines by stating that the Conference has decided against river quarantines, and with respect to maritime quarantines, it has accepted the conclusions of the Committee on the subject (see THE LANCET, Aug. 1st, p. 175), naming the ports of the Caspian and of the Red Sea as those in which, from their being the points of irruption of cholera into Europe, it is requisite to maintain a vigorous quarantine.

SKETCHES OF CONTINENTAL HOSPITALS.

(By our Special Correspondent.)

I.—MUNICH.

IT will be my endeavour in these sketches to give a literal description of the chief continental hospitals, the practice of which I have followed recently, with a view of ascertaining in what respect their system of hospital management and their treatment of disease differ from our own, in what measure we may with advantage follow the examples they offer, and in what instances we may profit by following a different mode of practice.

Munich has a medical school of 400 students, and among its professors are some of the best known names in Europe. The Professor of Medicine is Dr. Ziemssen, formerly of Erlangen; Dr. Nüssbaum, a man of great surgical repute, is Professor of Surgery; Rothmund lectures on Ophthalmic Surgery, and Hecker on Midwifery.

The Allgemeine Krankenhaus, in which the clinical instruction is given, contains 700 beds; it is in the outskirts of the city, and is surrounded by a large garden; the building, however, is old and ill-ventilated. Erysipelas, pyæmia, and hospital gangrene are all more or less seen,

and operative surgery is, therefore, practised under great disadvantages. In the neighbourhood are the anatomy school and museum, and a new pathological institute is being built in a street which runs alongside the hospital, so that when it is completed the post-mortem examinations will no longer be conducted, as they are at present, in a small, ill-ventilated room in the basement of one of the hospital blocks. In a garden adjoining the hospital is a comparatively new building capable of accommodating 100 additional patients, but here also the sanitary arrangements are far from good. On the other side of the river Iser is another hospital, capable of admitting 400 patients, and there are also two special hospitals in different parts of the city for lying-in women and for children. Munich is not a healthy city: the soil is gravel and very porous, the drainage is bad, and the water-supply, although brought from the mountains, a distance of twenty-five miles, is not so good as it might be. Typhoid fever is common, but typhus is never met with; diphtheria also is rare, but diseases of an asthenic type, as struma and phthisis, are very frequent.

Clinical teaching is for the most part done in the lecture-theatre, which serves also as an operating-room. It will hold about 120 students, but the theatre is rarely filled; it is well lighted and ventilated. Certain patients are brought down and placed on a table in the centre of the theatre, and then a student is requested to examine the case, and to give his diagnosis and treatment; the professor meanwhile is cross-examining both the patient and the student, and from time to time making remarks illustrative of the case. The condition of the patient is not allowed to enter into the consideration. Thus, a man aged fifty-four, with chronic pyelitis, following renal concretions, who was evidently about to die from uræmic poisoning, the breathing being slow and stertorous, and coma incipient, was placed before the students, and his case discussed for three-quarters of an hour by Dr. Ziemssen, in relation to the diagnosis of various kidney diseases. No doubt such a method of teaching is very impressive, but probably in England hospital committees would raise some objection to patients in a moribund state being brought from their beds to a theatre to be lectured on and examined for the best part of an hour. The students are extremely well conducted, and seem as a rule of a more mature age than the average medical student in England. There are many Russians and Swiss amongst them, three or four Americans, but no English.

Prof. Nüssbaum is an energetic and able teacher. He gives his visit at 7.30 A.M. and his lecture at 8. He allows his assistant, who is qualified and resident, to do minor operations, or even delegates them to one of his four student internes, reserving for himself the more important, and either prefacing or following them by a short clinical address. Owing to the frequency of erysipelas, &c., he has a special private hospital at some distance, at which he prefers to do his major operations. Carbolic acid, 1 part to 50 of water, is used for dressing wounds, but Lister's dressing is not carried out in its entirety, stuffing wounds with charpie dipped in carbolic acid being still much adopted. Dr. Nüssbaum is quite willing to concede the improvements England has introduced into surgery, and stated unhesitatingly that in perineoraphy he owed much to the late Mr. Baker Brown, and that since seeing Mr. Spencer Wells's careful mode of operating he had been more successful than before. He had just performed his forty-ninth ovariotomy. Teale's flaps he also uses, as in a case of amputation of the forearm for malignant disease of the radius in a woman aged thirty-nine, the disease having been only six weeks in existence. He uses silk ligatures for securing the arteries, and then, as he had applied Esmarch's bandage prior to the operation, and therefore feared subsequent hæmorrhage, lightly covered the stump with lint and gutta percha, and returned the patient to her ward. One novelty in his practice is that he applies the "fer rouge" not only to the ends of the bones, but also to the medullary cavity, and he says that in this way he prevents pyæmia; at any rate, of seventeen amputations performed last year without the cautery eleven died, and this year he has had up to the present time ten amputations, and not a single death. Stone in the female bladder is removed by him by division of the left side of the urethra with the lithotome caché, then by crushing the calculus with a lithotrite, and washing out the bladder frequently with weak carbolic solution. Sutures are introduced into the sides of the incision, but removed on the second day. Of fifteen cases thus treated, nine have been able to pass water and also to hold it within a week of the operation.

PARIS.

(From an occasional Correspondent.)

THE ASILE SAINTE ANNE.

IN a former letter I gave some account of the Salpétrière, and it may be worth while to describe the most recent and best-constructed of Paris asylums, the Asile Ste. Anne, otherwise known as the Hôpital Clinique d' Aliénés. This institution was planned during the administration of M. Husson, and opened in 1867, and since that time has played an important part in the care of the insane. During the late German siege and the subsequent suppression of the Commune, the asylum was for a long time the only one open for the reception of patients, those of the Salpétrière and Bicêtre being to a great extent evacuated. From its situation near the fortifications, and in a line with the forts of Bicêtre and Ivry and the German batteries, it was much exposed to their fire, no less than 180 shells falling within its walls, yet of the 600 patients then under care only one was killed—a result due in great measure to the precautions taken by the authorities.

The establishment consists of two entirely distinct parts, one the asylum proper, the other the Bureau d'Admission; the latter, as the most important, claims attention first. It is here that all indigent lunatics from the Department of the Seine are in the first instance examined and received, and subsequently transferred to the permanent asylums; all epileptics being sent to the Bicêtre and Salpétrière, the others divided between the different asylums. They remain here, however, for one or two weeks, and to accommodate them there are fifty beds, and also cells for the violent, &c., the arrangements of which resemble those in the asylums. The advantages of such an arrangement are evident, as it permits of the separation of those cases in which an error in diagnosis has occurred, such as that of the delirium of fever for insanity, and also allows of the treatment of cases of delirium tremens without confinement in an asylum. For teaching purposes it is also valuable, as a large number of cases of all forms of insanity come under observation, 2600 passing through the institution in the course of the year. From these a selection of fresh cases could always be made available for the cliniques, which, until recently, were given here by the two resident physicians, Drs. Magnan and Bouchereau; when needful, other patients were borrowed from the asylum. In addition to this there is an out-patient department, for the treatment of all forms of disease of the nervous system. A building was also commenced for the reception of cases of chronic alcoholism, but, since the war, has remained unfinished.

The general outline of the asylum proper is simple, consisting mainly of a series of separate pavilions, arranged on two sides of a large square—one side for males, the other for females—the two parts being in every respect symmetrical. There are six such blocks of buildings on each side, each entirely isolated, and having its separate garden, the whole, however, connected by a covered way, open at the sides. Each block holds from forty-eight to fifty patients; on the ground-floor is a ward, a large refectory, and a sitting-room; on the first floor, two large wards on each side of a central staircase, and a smaller ward in the centre. Only three attendants are required for each block, but they have ready means of communication with each other. In the "bureau d'admission" the proportion of attendents is of course much larger, three being required for every ten patients. At the centre of the series of pavilions are situated the bath houses, which are very completely fitted up with all sorts of baths. The treatment by baths is a good deal employed here, and the arrangements are much superior to those of some of the asylums. Behind the baths are placed the cells for violent patients, which are arranged in a semicircle, the doors opening towards the centre in a

common passage, whilst each cell, widening out, opens at the other end into a narrow court forming a segment of a circle. The courts are narrow and bare, and separated from each other by high walls. As the patients are never left in the cells by day, but allowed to mingle with each other in a common room or yard, the walls seem unnecessarily severe, and their removal is contemplated. Where needful, restraint is practised by a modification of the strait-waistcoat, proposed by MM. Magnan and Bouchereau. This consists of a garment made in such a form as to encase the whole trunk and limbs rather loosely, and fastened at the back by a strong lacing; after it has been put on, the arms are fastened to the sides by buckles, and to the legs by a strap passing round the leg below the knee. The arrangement, though simple, has the great advantages that the patient can walk about and be with the other patients, and also that the arms do not compress the chest or embarrass respiration, as is the case with the camisole. It forms, also, a complete covering, which can be made of material of varying thickness, according to the season, and is especially valuable in winter during the night, as it cannot be torn off. Those usually employed are made of blue canvas.

The workshops are also of much interest, a large number of male patients being employed in smith's, carpenter's, tailor's, and other work, all such work for the establishment being done by the patients. They are entirely under the charge of one foreman, without the oversight of any attendant. Similarly the female patients do most of the domestic work, cooking, washing, &c. I should mention that the male patients are under the medical care of M. Dagounet, the female of M. Lucas, both of whom are resident.

The grounds of the asylum are large and well cultivated, and afford occupation for most of those who are able to work.

I have not mentioned the other buildings belonging to the administration. They, as well as the asylum, are very complete and well-arranged, and merit a visit from all who are interested in the construction of such establishments.

Much valuable work has already been done here; in particular I may mention the observations of M. Magnan on alcoholism, a subject which he has had unusual opportunities of studying, and on which he has already published some researches of great interest.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. — The following gentlemen were admitted Fellows of the College on Aug. 5th:—

Blake, Charles Paget, M.D. Edin., Torquay.
Bradbury, John Buckley, M.D. Camb., Cambridge.
Cracknell, Henry Heanes, M.B. Oxon, Welbeck-street.
Gervis, Henry, M.D. Lond., St. Thomas-street.
Goodridge, Henry Fredk. Augustus, M.D. Lond., Bath.
Lee, Robert James, M.B. Camb., Savile-row.
Liveing, Edward, M.D. Camb., Queen Anne-street.
Moore, William Withers, M.D. Edin., Brighton.
Smith, Eustace, M.B. Lond., George-street, Hanover-square.
Thorowgood, John Chas., M.D. Lond., Welbeck-street.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College on July 30th:—

Alford, Frederick Stephen, Hampstead.
Belfield, Charles Woolliscroft, Bristol.
Bell, George Warner, Hatfield, Herts.
Bishop, George Houlton, Harrow-road.
Byrne, John Joseph, Manchester.
Corney, Bolton Glanvill, Kennington-road.
Haslam, Thomas Henry, L.S.A., Finborough-road.
Jones, Lewis, M.B. Dub., Aberystwith.
Kennedy, William Adam, Newcastle-on-Tyne.
Newman, John Jepson, Barnsley.
Noot, Edward, L.R.C.P. Ed., Dudley.
Sincock, John Bain, L.S.A., Scorrier, Cornwall.
Speirs, William, L.R.C.P. Ed., Glasgow.
Taylor, Arthur Norton ——, Maida-hill.
Thomson, Samuel John, L.S.A., Ramsgate.
Turtle, James Henry, L.S.A., Chatham.
Williams, Herbert Ernest, Tavistock, Devon.

Of the 190 candidates examined during last month, 120 passed to the satisfaction of the Court of Examiners, and received their diplomas; 26 passed in Surgery, and when qualified in Medicine will be admitted Members of the College; and 44 were referred to their professional studies for six months. 8 candidates who passed in Surgery at previous examinations, having subsequently obtained medical qualifications, were also admitted Members. This is the last examination for the present session.

The Library of the College will be closed from the 15th of August until the 1st of October for the necessary repairs, painting, &c.

[In the list of gentlemen who obtained the diploma of Membership on July 29th, published last week, for "Joshua Powell, Newcastle-on-Tyne," read "Joshua Powell, Blaenbarran, Newcastle Emlyn."]

NAVAL MEDICAL SERVICE. — The following candidates were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School at Netley, and who will receive commissions as Surgeons in the Royal Navy:—

	No. of Marks.
1.—Saunders, E. H.	4297
2.—Richardson, H. A. W.	3825
3.—Collot, J. A.	3490
4.—Luther, E. W.	3437
5.—Bentham, R.	3425
6.—Ross, N. C.	3394
7.—Collins, H. B.	3179
8.—Bennett, W. E.	3150
9.—M'Kinlay, A.	3032
10.—Hawton, J. W. H.	2910
11.—Mulock, E. R.	2800

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on July 30th:—

Allen, John Edward, Bollington, Cheshire.
Bartlett, Henry, Great Dover-street.
Gawith, James Jackson, Lancaster-road.
Hallam, Walter, Sheffield.
Hobbes, Charles Edward, Bidford, Redditch.
James, John, Aberystwith.
Snell, George, Jersey.
Wilkinson, Auburan, Tynemouth.

The following gentlemen passed their Primary Professional Examination on the same day:—

Ernest Dykes Bower, Leeds School of Medicine; Roger Edwards, University College; Thomas Fisher, St. Thomas's Hospital; Benjamin Wm. Gathergood, Guy's Hospital; John Self Lush, St. Thomas's Hospital; Charles Joseph Stocker, London Hospital; Harold Thompson, St. Bartholomew's Hospital.

THE will of Sir Alexander Nisbet, M.D., has been proved under £6000.

AN elderly woman died last week at Retford with symptoms of hydrophobia, the result, it is stated, of the bite of a cat received six months ago.

THE NEW SYDENHAM SOCIETY.—The sixteenth annual meeting of the New Sydenham Society, of which Mr. Jonathan Hutchinson is the hon. secretary, will be held in the Assembly-room, Norwich, on Thursday, August 13th, at 9 o'clock.

A FATAL CASE of "European Cholera" is reported from Hanwell. The deceased, who was a woman aged 34 years, was attacked on Saturday last, and after an illness of 24 hours died. The premises where she had lived were examined, and found to contain two overflowing cesspools and a quantity of stagnant filth. What are the sanitary authorities about?

TAPPING OF THE CHEST.—When the fluid has been evacuated by the exhausting apparatus, the lung, in expanding, may strike against the sharp and hard canula. To prevent this, M. Bohier, of Paris, uses a canula of soft metal to be introduced into the ordinary tube. When the pleura is emptied the soft canula bends down against the parietes of the chest, and the lung does not suffer.

DONATIONS, &c., TO MEDICAL CHARITIES.—The Charing-cross Hospital has received a fifth £1000 from W. S. N. The Victoria Hospital for Sick Children, Chelsea, has received a third £1000 from W. T. B. The Hospital for Consumption and Diseases of the Chest, Brompton, has received a fifth £1000 from C. N. D. The Royal National Hospital for Consumption, Ventnor, has received a fourth 100 guineas from the Fishmongers' Company. The Chichester Infirmary has received £100 under the will of Mr. E. W. Johnson.

THE QUEKETT CLUB.—Dr. Matthews was elected President of this club at the recent annual meeting. We understand that the club is in a prosperous condition, and is doing good work in furthering the use of the microscope for both general and scientific purposes.

MANCHESTER MEDICAL SOCIETY.—A number of the members of the Manchester Medical Society have presented a very handsome time-piece (value £30) to Mr. Charles J. Cullingworth, one of their honorary librarians, as a proof of the value they set upon his services, especially in the preparation of a new folio reference catalogue. The Society's library has been largely increased during recent years, and is now one of the most important in this country.

GUY'S HOSPITAL.—The following is a list of medalists and prizemen for 1873–74:—Treasurer's gold medal for Medicine: Daniel Herbert Forty.—Treasurer's gold medal for Surgery: William Henry Harsant.—Third-year's students: H. F. Lancaster, first prize, £40; W. E. Snook, second prize, £35; H. Caddy, certificate; St. Clair B. Shadwell, certificate; W. Cock, certificate.—Second-year's students: John Brett, W. P. Reynolds (equal) £32 10s. each; R. Bevan, *proxime accessit*, certificate; B. W. Gathergood, certificate; J. B. Waterhouse, certificate.—First-year's students: J. W. Meek, H. Davy (equal), £27 10s. each; P. Horrocks, third prize, £10 10s. (presented by one of the Governors); J. T. Hinton, certificate; J. Poland, certificate.

Medical Appointments.

BRUCKTON, W., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the New Radnor District of the Kington Union, Herefordshire, vice Kenyon, resigned.

CARTWRIGHT, J., M.R.C.S.E., has been appointed Medical Officer for the Leintwardine District of the Ludlow Union, Salop, vice Quick, resigned.

CLARKE, T. K., M.D., F.R.C.S.E., has been appointed a Surgeon to the Huddersfield and Upper Agbrigg Infirmary.

CLARKE, W. J., M.R.C.S.E., has been appointed Consulting Surgeon to the Huddersfield and Upper Agbrigg Infirmary.

CLENDINNEN, W. E., L.R.C.S.Ed., L.A.H.D., L.S.A.L., has been appointed Medical Officer of Health to the Urban Sanitary District of the Borough of Stafford.

COUNSELLOR, W. P., L.K.Q.C.P.I., M.R.C.S.E., has been appointed Medical Officer of Health for the Lancashire Sub-district of the Clitheroe Rural Sanitary District: £50 for one year; acreage 30,883; population 6870.

CREIGHTON, C., M.B., M.A., has been appointed Medical Registrar to Charing-cross Hospital, vice — Bruce, M.D., resigned.

CROWE, J. W., L.K.Q.C.P.I., L.R.C.S.I., has been appointed House-Surgeon to the Hartlepools Hospital and Dispensary, vice Crowe, appointed House-Surgeon to the Warneford Hospital, Leamington.

DIXON, Mr. J. D., has been appointed Assistant House-Surgeon to the General Infirmary, Northampton, vice Wills, resigned.

DONKIN, H. B., M.B., M.R.C.P.L., has been recommended for appointment as Assistant-Physician to the East London Hospital for Children and Dispensary for Women, vice Magrath.

EDWARDS, W., M.D., has been appointed Medical Officer for the Habergham Eaves District of the Burnley Union, vice Smirthwaite, deceased.

GALLWEY, J. H. M., M.B., C.M., has been appointed Medical Officer and Public Vaccinator for the newly formed Coniston District of the Ulverstone Union.

GRANGE, W. D'OYLY, M.B., C.M., has been appointed Resident Medical Officer to the Royal Edinburgh Hospital for Sick Children, vice Mac Queen, resigned.

GRAINGE, F. M., M.R.C.S.E., has been appointed an Assistant Resident Medical Officer to the Leeds Public Dispensary.

HARDMAN, C. E., M.R.C.S.E., has been appointed Resident Medical Officer to St. George's Hospital.

HUMBLE, T., M.D., M.R.C.P.I., has been appointed Professor of Medicine at the University of Durham, vice Charlton, deceased.

HUNT, R., M.R.C.S.E., has been appointed an Assistant Resident Medical Officer to the Leeds Public Dispensary.

HUNTER, C., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Carrick Dispensary District of the Glenties Union, Co. Donegal, vice Graham, resigned.

JENKINSON, H., L.R.C.P.Ed., M.R.C.S.E., has been appointed Senior Resident Medical Officer to the Leeds Public Dispensary.

KENWORTH, J. W., M.D., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Aston-road, or No. 1 District of the Aston Union, vice Meeke, deceased.

LIDDERDALE, J., jun., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Great Bedwin District of the Hungerford Union, vice Palmer, deceased.

LLOYD, E. J., M.B., has been appointed House-Surgeon and Secretary to the Denbighshire Infirmary, Denbigh, vice Jones, resigned.

LLOYD, T. LL., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Cheswardine District of the Drayton Union, Salop, vice Meek, whose appointment has expired.

MACFIE, J., M.B., C.M., has been appointed Resident House-Surgeon to the Evangelical Protestant Deaconesses' Institution and Training Hospital, Tottenham, vice Fletcher, resigned.

M'GILL, A. F., M.R.C.S.E., has been appointed a Surgeon to the Leeds Public Dispensary, vice Atkinson, resigned.

MAGRATH, J., M.D., has been recommended for appointment as a Physician to the East London Hospital for Children and Dispensary for Women.

MIDDLETON, W. H., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer to the Mullingar Gaol, vice Ferguson, superannuated.

NEEDHAM, W., M.R.C.S.E., L.F.P. & S. Glas., has been appointed Senior Resident Medical Officer at the Workhouse Infirmary, New Bridge-street, Manchester, vice Patchett, resigned.

NEWBY, T., M.D., M.R.C.S.E., has been appointed Medical Officer of Health for the Grimsby Urban Sanitary District: £50 per annum; acreage 1600; population 23,000.

PARTRIDGE, S., M.R.C.S.E., has been appointed Medical Officer of Health for the Darlaston Urban Sanitary District: £30 per annum; acreage 800; population 16,000.

PRINGLE, H. T., M.D., has been appointed Medical Superintendent to the Glamorgan County Asylum, Bridgend, vice D. Yellowlees, M.D., appointed Physician-Superintendent of the Glasgow Royal Asylum.

PYWELL, W. H., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for No. 1 District of the Parish of Lambeth, vice Dodd, deceased.

ROWALDSON, T. R., M.B., C.M., has been appointed a House-Surgeon to the Edinburgh Royal Maternity Hospital.

SEABROOK, W. M., M.R.C.S.E., has been appointed Medical Officer of Health for the Yorkshire Sub-district of the Clitheroe Rural Sanitary District; £50 for one year; acreage 77,027; population 5994.

SKRIMSHIRE, F. W., M.R.C.S.E., has been appointed Public Vaccinator for No. 2 District of the Morpeth Union.

SMITH, G. F. K., F.R.C.S.E., has been appointed House-Surgeon to the General Infirmary, Northampton, vice Lewis, resigned.

SMITH, W. J., L.R.C.P.Ed., L.R.C.S.Ed., L.S.A.L., has been re-elected Medical Officer of Health for the Rawmarsh Urban Sanitary District: £40 per annum; acreage 2578; population 8000.

SPENCER, W. H., A.M., M.B., has been appointed Lecturer on the Principles and Practice of Medicine at the Bristol Medical School, vice E. L. Fox, M.D., resigned.

URQUHART, A. J., M.B., C.M., has been appointed a House-Surgeon to the Edinburgh Royal Maternity Hospital.

WEBB, C. F., M.R.C.S.E., has been appointed Senior Resident Medical Officer to the Hants Lunatic Asylum, Knowle.

WOODS, T. A., M.B., L.R.C.S.I., has been appointed Resident Medical Officer to the Isle of Man General Hospital and Dispensary, Douglas, vice Bott, whose appointment has expired.

WOTHERSPOON, W., L.F.P. & S. Glas., has been appointed Medical Officer to the Ballachulish Slate Quarries: £300 per annum guaranteed.

YOUNG, J., M.D., has been appointed Parochial Medical Officer and Public Vaccinator for Tarbolton, Ayrshire, vice Kennedy.

YOUNG, Mr. J. (Public Analyst for the Borough of Leicester and the Counties of Leicester and Rutland), has been appointed Public Analyst for Northamptonshire: minimum salary 60 guineas per annum.

[ERRATA.—In paragraphs "Buchanan, A. M'G.," p. 180, and "Smith, R. S.," p. 181, for "University of St. Andrews," read "Andersonian University Glasgow."]

Births, Marriages, and Deaths.

BIRTHS.

BLECKLEY.—On the 3rd inst., at Woolston, Hants, the wife of Surgeon-Major T. M. Bleckley, M.D., LL.B., C.B., of a daughter.

DOBIE.—On the 30th ult., at Chester, the wife of W. M. Dobie, M.D., of a daughter.

DUNLOP.—On the 3rd inst., at Carlton-place, Glasgow, the wife of James Dunlop, M.D., of a son.

GRACE.—On the 3rd inst., at Prospect House, Thornbury, the wife of E. M. Grace, L.R.C.P.Ed., of a son.

LEACHMAN.—On the 24th ult., at Petersfield, the wife of A. W. Leachman, M.D., of a son.

MANLEY.—On the 27th ult., at Woolwich, the wife of W. G. N. Manley, M.R.C.S.E., Surgeon-Major Royal Artillery, V.C., of a son.

TEMPLE.—On the 26th of June, at Umballa, the wife of W. Temple, M.B., Surgeon-Major Army, V.C., of a son.

WALTERS.—On the 4th inst., at Reigate, the wife of John Walters, M.B., of a daughter.

MARRIAGES.

CALDWELL—MILLER.—On the 30th ult., at St. Mark's, Kennington, Wm. Townley Duncan Caldwell, M.D., to Martha Margaret, daughter of D. Graham Miller, M.R.C.P.L., 1st Class Staff Surgeon R.N.

FOX—BURGOYNE.—On the 30th ult., at St. Mary Magdalene's, Campsall, Doncaster, Wilson Fox, M.D., to Evelyn, widow of Hugh Burgoyne, Captain R.N., and daughter of Admiral Sir Balwin Wake Walker, Bart.

REID—WATSON.—On the 21st ult., at Cults, Aberdeen, Alexander Reid, M.D., of Canonbury-park, to Annie, daughter of the late Robt. Watson, Esq.

DEATHS.

ATKINSON.—On the 1st inst., Robt. Atkinson, L.S.A.L., House-Surgeon to the Hull and Sculcoates Dispensary, aged 78.

HOWATT.—On the 16th ult., H. R. Howatt, M.D., of Cumberland-street Glasgow.

NORTON.—On the 1st inst., at Nantglas, Llanelly, Carmarthenshire, John Howard Norton, M.D., aged 59.

RIX.—On the 17th of June, on board the Royal Mail Steamship "Nile," off Greytown, Central America, Rich. Avery Rix, M.R.C.S.E., late Medical Officer to the Chontales Consolidated Mining Company, Nicaragua, aged 31.

SCHLESINGER.—On the 29th ult., B. M. M. Schlesinger, M.R.C.S.E., House-Surgeon of St. Mary's Hospital, aged 21.

TRAILL.—On the 21st ult., at Stromness, Orkney, William Traill, M.D., aged 46.

WILSON.—On the 17th of June, John Wilson, M.D., Surgeon R.N. (retired list), of Park-crescent, Brighton.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

Notes, Short Comments, and Answers to Correspondents.

MR. LUTWIDGE.

Our readers will remember the painful circumstances under which this valuable public servant on the Lunacy Commission came by his death. An interesting reference to his life and labours appears in the Commissioners' Report just issued. It was on the 21st of May last year that Mr. Lutwidge, in the discharge of his duty, was visiting Fisherton House Asylum, and with his colleague, Mr. Wilkes, had nearly completed his inspection of the establishment. Conducted by Dr. Finch, one of the proprietors, and by the head attendant, the Commissioners were leaving the wards, when a pauper patient, one William M'Kave, an inmate of the ward, who had stealthily approached the group, suddenly raised his arm, and with a long nail dealt a blow at Mr. Lutwidge's right temple, which penetrated the skull. Although not immediately fatal, the injury thus received was the direct cause of Mr. Lutwidge's death on May the 28th, a week after the attack. M'Kave was indicted for wilful murder at the Wilts Summer Assizes; but evidence as to his state of mind having been heard, the Lord Chief Baron Kelly expressed a strong opinion that it was useless to go on with the case, and a verdict of "Not guilty on the ground of insanity" was returned by the jury. M'Kave's history is instructive. He belonged originally to the "criminal lunatic" class, having become insane while a prisoner in Bedford Gaol for wilful damage to property. After spending six years in the Bedford County Asylum for pauper lunatics, he was removed in 1863 to Fisherton House, and was well known to the Commissioners. He was employed in the garden, where he found the nail which he fashioned into a lethal weapon. He was not considered actually dangerous; while certain of the Commissioners, recognising his imperfectly developed intellect, yet held him responsible for his actions. No blame attaches to the asylum managers for insufficient watching and guarding of the lunatic, the staff of attendants at Fisherton House having invariably been very large, and patients of the dangerous class being kept under the most effective surveillance. The Commissioners conclude their narrative by quoting the resolution agreed to at their Board meeting on the 9th June, 1873:—"The members of the Lunacy Board, deeply grieved at the lamentable occurrence by which the life of a valuable public servant and an esteemed private friend has been sacrificed, beg to convey to Mr. Lutwidge's family an expression of their unfeigned sympathy and sorrow, and desire to place on record their sense of the loss which they have themselves sustained by the death of an unwearied fellow-labourer, who had served on the Commission since it was constituted by the statute of 1845, who brought great ability and the most varied experience to the duties he took so much pleasure in discharging, and whose kindly and generous disposition had endeared him to all his colleagues."

Mr. L. C. Woolridge.—The questions were answered in our last issue.

COUNTY CORONERS AND MEDICAL PRACTITIONERS.

To the Editor of THE LANCET.

SIR,—Permit me to call your attention to the following facts:—On Thursday afternoon last I was suddenly called to see the body of a boy which had just been found in a field, about a mile and a quarter distant from my residence. On my arrival I found the boy had most probably been dead some two hours or more, and I ordered the removal of the body to the nearest inn to await the inquest; at the same time I gave instructions for the constable to communicate with the coroner. All day on Friday I was naturally holding myself in readiness to receive the coroner's summons to attend the inquest and perform the post-mortem examination, but no summons arrived. About midday on Saturday I was somewhat surprised when I was informed that a neighbouring practitioner wished to see me with regard to making a post-mortem &c. It then transpired that he had that morning received a note from the coroner, requesting him to make the post-mortem and attend the inquest in my case. He was exceedingly courteous, and politely invited me to be present, which invitation I declined. I at once wrote to the coroner, asking him if he would inform me on what grounds he failed to summon me; and his reply was, "that owing to the necessity for despatch in getting the history of the case from the parish constable, and the pressure of domestic affliction upon himself, made my claim unheeded." So that I was put to the inconvenience of a journey of two miles and a half over a rough road, and personally superintended the removal of the body to the inn &c., and through the utter disregard of the common laws of courtesy my claim was entirely ignored.

I am, Sir, yours obediently,
EDWARD A. PIGGOTT, L.R.C.P. & S. Edin., &c.

Stoke Ferry, Brandon, Norfolk, Aug. 4th, 1874.

Enquirer.—1. The law does not absolutely require that deaths be certified by a legally qualified practitioner. If certified by one not qualified, the registrar is instructed to write "*Not certified*" after the cause of death.—2. A chemist who visits, prescribes, and supplies medicine violates the Apothecaries Act; and the Society might be disposed to prosecute if our correspondent laid the facts before it.

HAY FEVER.

To the Editor of THE LANCET.

SIR,—Neither of your correspondents seems to have tried arsenic in this troublesome complaint. I look upon it almost as a specific, having cured some very bad cases down here in a remarkably short time by the use of the liquor potassæ arsenitis, given with water in five-minim doses three times a day immediately after meals. Yours &c.,

Kew, August 3rd, 1874. W. A. SATCHELL.

THE MAURITIUS.

Since it was wellnigh decimated by the fever epidemic in 1867—a visitation which brought ruin on many hundreds of the survivors—the Mauritius has been the subject of sanitary legislation, which has just taken the form of a Public Health Ordinance introduced by his Excellency the Governor, and read a third time and passed at the meeting of Council on the 20th of June. It came into operation on the 1st of July, and is divided into four parts. The first provides for the formation of a Board of Health as a sanitary authority, and contains the necessary regulations for the election of members, defines its power and authority, and regulates the general constitution of the Board. It provides that the Board shall consist of the chief medical officer, the surveyor-general, and the Mayor of Port Louis, all for the time being, with eight other members. The Board is authorised to make regulations and orders with regard to the execution of the laws relating to quarantine; the drainage and cleansing of towns, villages, and districts; the cleansing, ventilation, and drainage of premises, closets, &c., for public use; the supply of water for public use; the prevention of the exposure for sale of unwholesome food; the prohibition of the establishment within certain limits and the control of any trade, business, or process injurious to the public health; the management of slaughter-houses; the licensing and control of lodging-houses; the prevention of overcrowding; and burials, dead-houses, and cemeteries. Nearer home a salutary lesson might be taken from the comprehensive, clear, and vigorously conceived Public Health Ordinance of the Legislative Council of the Mauritius. No doubt the sanitary state of the island was such as to render the measure a question of life or death. Though hundreds die yearly of malarious and other preventable fevers, still the *laissez aller* of the general population and the filthy and uncontrolled habits of the native Indian community have received no check till now. The new Board has a heavy task in store for it; but, with the powers it possesses, it will be alone to blame if Hygeia remain much longer a stranger to the Mauritius.

Mr. Wheeler.—We never recommend a particular surgeon.

MEDICAL ETHICS IN KILMARNOCK.

To the Editor of THE LANCET.

SIR,—In reply to a letter which appeared in last week's LANCET under the above heading, I beg to make a statement of the real facts of the case.

I am the regular medical attendant of the family in which Johnstone, the injured man, is a member; and whilst, no doubt, humanity on the part of the policeman prompted him to to seek the nearest medical man, afterwards when the wound was dressed it lay entirely with the relatives of the injured man to say who they wished to attend the case. It so happened that the very morning on which the brutal assault was made on the man Johnstone I was visiting within a few minutes' walk of the village, and in going up I found a messenger had been despatched for me. The wounds which Mr. Scott appears to describe so minutely I found a mere bagatelle; but the real seat of the injury lay in fracture with depression of the skull, probably running into the base of the brain, and which appears to have escaped Mr. Scott's notice. Before leaving I asked distinctly of the brother of the injured man who they wished to attend, and he said, "No one but yourself," adding that they never had sent for Mr. Scott, but that he had been brought by the police officer. I took the subsequent steps in the case which I usually do; and while coming out of the railway carriage I met Sheriff Anderson, stated the facts of the case to him, and he asked me to come to his chambers. Some little time elapsed before I got down, and on arriving I found the medical officer of the Crown, who had been sent for without my knowledge. Mr. Scott says he was told by the policeman that the sheriff and medical officer for the Crown and the doctor in attendance had set off to examine the man. The real fact is, the medical officer for the Crown (Dr. Paxton) and myself only examined the man, the sheriff not being present at all. On my visit to Gatehead I asked distinctly if they wished me to continue, and in presence of one of the detectives they answered in the affirmative. Next morning judge my surprise when I found not only had Mr. Scott persisted in attending the case, but had gone into Kilmarnock and brought out his principal, Mr. Donald M'Leod, surgeon, to attend the case in conjunction with him. I took no notice of the matter till some days after, when the brother of the injured man called on me to say that his employer had sent a man to say that Mr. M'Leod and his assistant were to attend the case. As I had some suspicion that no such order had been given, I wrote a note to Mr. Finnie, coalmaster, in whose service the injured man was, and received a very courteous letter, in which he (Mr. F.) says he had been from home for ten days, and therefore could have given *no such order, and no one had authority from him to do so*, adding that he regretted very much that I should have had any annoyance of the kind. The people were very indignant when they knew the real facts of the case; and I am not only attending the injured man, but also his brother, who is ill at present. As to the latter part of Mr. Scott's letter, I think it hardly worth while to answer; and as he has been only two months in the locality, it is mere hearsay so far as he is concerned. I was sent for one evening, at 11 P.M., two miles into the country, and on arriving I received a history of the case from the husband, whom Mr. Scott had been attending under the impression it was small-pox, when in reality it was pneumonia. The husband had sent for Mr. M'Leod, and I left the case in his hands, and neither prescribed nor attended afterwards.

In parting from this case, I would give Mr. Scott one word of advice, and that is, next time a policeman asks him to attend a case, to see that he has the authority of the patient or his friends for doing so; else he may be shut out from it altogether, as occurred in this case both with him and his employer, Mr. M'Leod. I am, Sir, yours &c.,

Kilmarnock, August 1st, 1874. JAS. RANKIN, L.F.P.S.G., &c.

Rusticus.—1 and 2. We do not know the kind of appointment—"sanitary medical officer"—to which our correspondent refers, and consequently are unable to say what medical qualifications are required.—3. No.

A. B. C. had better consult our advertising columns.

OBSTETRIC FEES.

Mr. W. H. F. Ramsden.—The general rule is for County Court Judges to allow such fees, provided that the medical man engaged has not failed to attend through any fault of his own. In an action by a medical man to procure his fee under such circumstances, sent down for trial to a County Court from the Court of Common Pleas, evidence was given of the custom in the profession for a medical man to be paid his fee in a midwifery case where he was retained beforehand, whether sent for or not. The Judge considered the custom proved, allowed the claim, and further remarked that it was only right that such fees should be paid, as medical men held obstetric engagements as a most sacred trust. The Judge was right. It may be said that a medical man is more hindered by consideration for the obstetric engagements which he has undertaken than by the actual discharge of his obstetric duties. Various cases in point will be found in back numbers of THE LANCET.

Juvenis.—In Medicine, 3; Surgery, 1 and 3; Midwifery, 1.

ARMY MEDICAL DEPARTMENT.

To the Editor of THE LANCET.

SIR,—Kindly grant me space to say a few words on the fearful state of anarchy and dissatisfaction prevailing in the department. I have hardly been in the district in which I am now serving six weeks, and in that short space of time have been moved six times, all of them for very short periods, the longest period was only twelve days, but on each occasion I never knew whether I should be away for one day or one month. The expense of being continually moved about is really very great. What with hotels and getting one's meals where one can at refreshment-rooms and hotels, it really is a very great strain upon one's pocket. Again, we lose much in professional knowledge, often treating a set of men for a few days, and then being given a fresh set of men. In fact, a regiment never knows who its doctor is. Of course we have the disagreeable task of calling on the mess of every corps we are attached to, and making the acquaintance of fresh sets of officers—no easy thing to be done in a few days. I state most emphatically that the medical officers have lost greatly in social status and position under this delightful new system: our homes broken up; all well-known sympathy and cordiality broken up between officers, men, and their doctors. We never minded being moved about under the old system, as we always returned to our regiments in the end, and found our quarters, furniture, and private property safely taken care of by our brother-officers. Moreover, favouritism exists now more than ever in giving appointments. I have only met one medical officer who approves of the change, and he is high in rank, and perfectly safe from the expense and worry of continual shifts. I could write volumes on the deep dissatisfaction pervading all ranks of the department, and feel certain that nothing but a return to the old system will heal the heartburnings and discontent felt at the doing away of the regimental system. Men slaved, spent their money, and gave their hearts to the men of their regiments when sick. Now all is done in a routine way, and all kindly feeling and sympathy has vanished.

I remain, Sir, your obedient servant,

August, 1874. AN INJURED ONE.

Theta, (Liverpool.)—The author of the particular views as to the relations of Church and State which, under the term "Erastianism," have been so largely referred to in recent debates in Parliament and elsewhere, belonged to the medical profession. Erastus was born in Baden some time in the sixteenth century, and occupied the Chair of Medicine at the University of Heidelberg. He was also physician to the Elector Palatine Frederick III., and the author of several medical works, as well as of others of a politico-religious kind.

EXTENSION OF FLAPS IN STUMPS.

To the Editor of THE LANCET.

SIR,—A correspondence has, I perceive, been going on as to the originator of extension in the treatment of flaps after amputation, and in your last week's issue Mr. Edwd. Warren Bey, chief surgeon of the Staff, Egyptian Army, carries back his claim to 1860. How exactly Mr. Warren Bey carries out his extension I do not know; but the principle of such extension was used by me in the wards of Guy's Hospital so long ago as before I passed—viz., before the year 1848. Moreover, having had occasion later on, when I was in general practice, to use the apparatus again, I thought it well to publish the case, and in the *Medical Times and Gazette* of Feb. 14th, 1852, an engraving and explanation of my apparatus may be found. My apparatus has these advantages: it is almost costless, anyone can understand its application, and I have never known it fail in the object for which it is applied.

Yours faithfully,

Warminster, August 4th, 1874. JOSEPH HINTON.

Golconda.—The situation is difficult and delicate. A medical man is not called on to divulge facts which come to his knowledge in a professional way, unless some great purpose is to be served, or participation in a great crime is to be avoided. If "everybody knows," there is the less need for him to turn informer. If the death of the mother were to result from the treatment, the case would be very serious, and our correspondent would be justified in refusing a certificate.

BICYCLES.

To the Editor of THE LANCET.

SIR,—I have been very much interested in "A Country Surgeon's" letter respecting bicycles, so much so that I venture to ask him, through the medium of your journal, for a little more information respecting the machines he so eulogises. Firstly, is it necessary that one should be "wearing the gay tinge of youth's roses" to become a proficient in the art of bicycling? or does the rotundity so common, if not graceful, between man's fourth and fifth decade constitute a fatal barrier? Secondly, in how short a time can one acquire the power of riding? Thirdly and lastly, what is the price of a good machine, and where the best place to procure it? An answer to these questions will, I have no doubt, oblige many other country surgeons besides myself.

Yours obediently,

August, 1874. A WOULD-BE BICYCLIST.

MR. TOBIN'S SYSTEM OF VENTILATION.

THE subject of ventilation is of so much importance in a sanitary point of view that we lose no time in mentioning, for the benefit of those concerned, the system that has just been patented by Mr. Martin Tobin. His system has been tried on a large scale in Leeds, notably in the Borough Police Court and in the offices of the *Leeds Mercury*. The success of these experiments has been very great, and has called forth the praise of the magistrates and of the proprietors of the *Leeds Mercury*. Mr. Tobin's plan is said to be perfectly simple, inexpensive, and easy of application, and, according to the inventor, admits of every door and window of a room being closed. The system has even succeeded in a closed room with a large amount of gas burning all night. It is so simple as to be in danger of being under-estimated by some. But better judges will regard simplicity as a great recommendation.

"A PECULIAR CASE OF EMPHYSEMA OF THE EYELIDS."

To the Editor of THE LANCET.

SIR,—With reference to a case recorded in your last issue by Dr. Newcombe, of Gateshead, under the above heading, I may state that emphysema of the eyelids coming on after forcibly blowing the nose is not a very uncommon accident, and the possibility of its occurrence is mentioned by numerous ophthalmic writers (Mackenzie, Power, Soelberg Wells). Within the last twelve months I have seen a case of this kind in the practice of the Eye Infirmary of this town, and some few years back I had a similar one in private practice. In the latter, on careful questioning, I ascertained that some time previously there had been a slight discharge from the nostril of the affected side, and I had little doubt that by ulceration a small aperture had been made in the lachrymal bone. I believe this is usually the origin of these cases where the emphysema is superficial, and does not produce exophthalmos. Dr. Newcombe seems to think this view is not tenable, because the emphysema does not spread down the nose, and affects but comparatively little the parts near the inner canthus. The fact of these parts not becoming emphysematous, to my mind, is due more to the close and firm attachments of the skin in these situations, and the extreme laxity of it in all other parts of the eyelids.

I remain, Sir, yours &c.,

CHRISTOPHER S. JEAFFRESON,

Surgeon to the Eye Infirmary, Newcastle-upon-Tyne.

Newcastle-upon-Tyne, Aug. 1st, 1874.

Reformer.—Prof. Huxley's scheme of medical education would restrict the first two years of the curriculum to anatomy and physiology, and nothing else; the student should then pass a real practical examination in these subjects, and, having gone through that ordeal satisfactorily, he should be troubled no more with them. His whole mind should be given with equal intentness to therapeutics in its broadest sense, to practical medicine and to surgery, with instruction in hygiene and in medical jurisprudence, and of these subjects only—surely a goodly number!—should he be required to show a knowledge at his final examination.

Mr. Ruskin, (Kilmarnock.)—We shall be happy to receive the paper.

PROFESSIONAL ETIQUETTE.

To the Editor of THE LANCET.

SIR,—I have to thank you for your courtesy in inserting in THE LANCET of the 25th July my vindication of the "want of candour" of which you accused my friend and client, Miss T., of Weybridge.

In your comments on the letter addressed to me by Father Glenie there is raised a question as to the positiveness of his statement concerning Dr. Sealy's attendance on Miss T. Father Glenie is at present on the Continent, and in his absence permit me to state distinctly, on his part and on my own, that Dr. Sealy was never known to be, nor recognised as, the medical attendant of Miss T.

I am, Sir, your obedient servant,

J. J. KELLY.

Molyneux Chambers, Goswell-road, E.C., August, 1874.

Hirundo.—An excellent guide to climate in its medical aspects will be found in Mr. C. Home Douglas's "Searches for Summer," just published by Messrs. Blackwood.

Dr. F. Orton.—Our correspondent's views appear to us to be sound and reasonable. He ought to have received more satisfaction at the asylum.

Mr. Duty is thanked for his courtesy.

A NEW FORM OF CATHETER AND BOUGIE.

To the Editor of THE LANCET.

SIR,—I have been so frequently mortified at the disappointment and difficulties in passing the ordinary smooth form of catheter through strictures, that I have had one constructed so simple and efficient in my hands that I shall feel truly gratified if any member of the profession, after a fair trial of the instrument, will add his experience to mine, and state in reply to this if I am correct in claiming a decided preference for it over the ordinary form. If it should prove more efficient, I shall be amply rewarded in feeling that I have conferred a benefit on suffering mortals. My instrument, catheter or bougie, is of the ordinary bend, but tapering from point to heel, with four deep, smooth grooves extending from point to heel—one on the convexity, one on the concavity, and one on each side. The instrument varies in size from 3 to 6. Now, I have never yet failed in passing this form of instrument through the strictures, and, indeed, in one case I succeeded where the ordinary catheter had failed for years to be passed. My explanation of its merits is this: The stricture accommodates itself to the grooves, and as each groove retains more of the lubricating substance used on catheters, there is less friction, as it were, and the tapering facilitates the onward movement; and, moreover, it has another advantage, that in case an operation for division of stricture is demanded, the catheter acts as a guide for the operator, and after division it can be passed into the bladder without withdrawal for another, as is usual in ordinary cases.

I am, Sir, your obedient servant,

Bermuda, June 26th, 1874. PARK B. TUCKER, M.D., &c.

THE TITLE "PHYSICIAN."

X. Y. Z.—We are not aware that he would violate any law in using the title mentioned. The word "physician" has hitherto signified a consulting medical practitioner. Now that the title of "apothecary" is likely to become as infrequent as it is undignified, it is probable that the word "physician," in the absence of any bye-laws to the contrary, will be used to signify a licentiate of a College of Physicians and a practitioner with other medical qualifications than that merely of the Apothecaries' Society.

GOUTY DEPOSITS.

To the Editor of THE LANCET.

SIR,—I observed in your columns some months ago a letter from a surgeon, who spoke in high terms of some application which he had used for the removal of gouty deposits. As I possess several on my hands, which I fear are enlarging, and others appear inclined to come, I should feel much obliged if you kindly insert this letter in the hope that I may be enabled to get the unfailing remedy spoken of or some equally efficacious application. Such things are disfiguring and awkward, particularly in members of the medical profession.

I am, Sir, your obedient servant,

August, 1874. M.D.

SPECULUMS.

To the Editor of THE LANCET.

SIR,—In the number of THE LANCET for June 13th, I notice, under the head of "New Invention," a description of a "Tapering Metallic Tubular Speculum," a most useful instrument, but it is not a new one. I have one precisely like it in shape, which I have used for thirty years. My friend and late colleague, Mr. Archer, of Birmingham, has also used the same kind for many years. I have a nest of four different sizes, made to slip within each other for the convenience of carriage. They are silver-plated and gilt.

I am, Sir, yours truly,

FRANCIS ELKINGTON,

Brockville, Ontario, July 24th, 1874. Late of Birmingham, England.

ERRATUM.—In Dr. Longhurst's article on the Treatment of Delirium Tremens, published in our last number, the quantity of compound jalap powder (in conjunction with spirit of nitric ether) recommended by the author was incorrectly printed. The passage (page 154, line 21 from bottom of first column) should read thus:—"I have usually found one or at most two doses of two *scruples* of the former" (compound jalap powder), &c.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir H. Thompson, London; Mr. Barwell, London; Mr. Kelly, Birmingham; Mr. Sherman, Maidstone; Mr. Manley, West Bromwich; Messrs. Colls & Sons, London; Dr. Reed, Manchester; Mr. Jones, Bristol; Mr. Wotherspoon, Glasgow; Mr. Compton, Louth; Dr. Ryan, Midleton; Mr. Russell; Mr. Hordley, Hartshill; Mr. Smith, Edinburgh; Drs. Lesser, Scheede and Tillmanns; Mr. Dixon, Preston; Mr. Angel, Southampton; Dr. Scott, Dumfries; Dr. Henry Bennet; Mr. Carteighe, London; Mr. Clendinnen, Strafford; Mr. Haslewood, Sheffield; Dr. Williams, Dieppe; Mr. Marsh, Shrewsbury; Dr. Fox; Mr. Wyatt, Shepton Mallet; Mr. John Taylor, Hawkhurst; Mr. Cullingworth, Manchester; Mr. Norcliffe, Manchester; Mr. Russell, London; Mr. Wooldridge; Mr. Arkle, Morpeth; Mr. Henry, Selhurst; Dr. Yellowlees, Bridgend; Mr. A. Thompson, London; Dr. Smart, Edinburgh; Mr. Ellis, Whitchurch; Mr. Godfrey, Southampton; Mr. Browne, Truro; Dr. Heginbotham, Bruton; Mr. Geoghegan, St. Clears; Mr. Davy, London; Mr. Horton, Maryport; Mr. Endew, Huntingdon; Mr. Walpole, Fordingbridge; Mr. J. B. Haynes, Chester; Mr. W. Rivington, London; Mr. Elkington, Ontario; Mr. Smith, Rotherham; Mr. Robinson, Dublin; Dr. Bleckley, Southampton; Mr. Eyder, London; Mr. Hinton, Warminster; Mr. Priddle, London; Mr. Barnes, Carlisle; Mr. Wilkinson, Coventry; Mr. Piggott, Brandon; Mr. Jordan, Birmingham; Dr. Eagle, Crouch End; Mr. Jeaffreson, Newcastle-on-Tyne; Dr. Spencer, Clifton; Dr. Longhurst, Weymouth; Mr. Taylor, Braintree; Dr. Crichton Browne, Wakefield; Mr. Waren Tay, London; Dr. Young, Malton; Mr. De Ricci; Mr. Odell, Hertford; Mr. Rankin, Kilmarnock; Mr. Cooper, Eltham; Mr. Phillips, Coleford; Mr. Healy, London; Mr. Brunton, New Radnor; Dr. Southey; Mr. Brazier, Aberdeen; Mr. J. Scott; Mr. Powell, London; Mr. Page, London; Mr. Higgens; Mr. Smith, Glasgow; Mr. Lewis, London; Dr. Blanc; The Director-General of the Navy Medical Department; The Registrar of the College of Physicians; An Injured One; A Would-be Bicyclist; The Director-General of the Army Medical Department; Justitia; A Member of the British Medical Association; M. G.; Practitioner; Army Surgeon, India; Brindisi; &c. &c.

LETTERS, each *with enclosure*, are also acknowledged from—Mr. Larmuth, Manchester; Mr. Taplen, Kirkoswald; Mr. Price, Woodford; Mr. Shaw, Great Marlow; Mr. Humble, Birkenhead; Mr. Hyslop, Church Stretton; Mr. Graham, Walton; Mr. Barnes, Hambrook; Mr. J. Osborn, Huddersfield; Mr. Lockie, Stafford; Mr. Molyneux, Bootle; Mr. Ford, Mitcham; Mr. Paterson, Blackburn; Mr. J. Boyd, Canterbury; Mr. Haynes, Peterborough; Mr. Thorn, Sheffield; Mr. Long, London; Mr. Gray, Oakham; Mr. West, Bristol; Mr. Davis, Frome; Dr. Merryweather, Guisborough; Dr. Dean, Barnley; Mr. Bishop, Sedgefield; Mr. T. Dorman, Sheffield; Ilex; A. F.; B.; T. B.; C. W. C.; J. C.; M.D.; J. M.; H. P.; Medicus; H. H.; P. H.; A. B.; P. M.; L.S.A.; Medico; A. and B.; Lamarche; L. N.

Cork Constitution, Newcastle Daily Chronicle, Manchester Guardian, Sunday Times, Spectator, Academy, Broad Arrow, Examiner, Land and Water, Garden, Welshman, Irish Hospital Gazette, Pharmaceutical Journal, Metropolitan, East London Observer, Liverpool Daily Post, Field, Queen, Graphic, Army and Navy Gazette, Huddersfield Chronicle, United Service Gazette, and *Surrey Advertiser* have been received.

METEOROLOGICAL READINGS

(Taken by Steward's Instruments).

THE LANCET OFFICE, AUGUST 6TH, 1874.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radiation in Vacuo	Max. Temp. Shade	Min. Temp.	Rainfall.	Remarks at 8 A.M.
July 31	...	...	...	...	...	...	...	...	...
Aug. 1	30·02	W.	60	62	87	72	56	...	Overcast
„ 3	29·92	W.	54	57	110	72	51	...	Fine
„ 4	30·08	W.	55	58	74	63	50	...	Overcast
„ 5	29·93	W.	54	57	76	63	48	0·15	Overcast
„ 6	29·92	W.	54	60	...	...	52	...	Fine

Medical Diary for the ensuing Week.

Monday, Aug. 10.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, Aug. 11.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Aug. 12.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Thursday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, Aug. 13.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Aug. 14.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Aug. 15.

HOSPITAL FOR WOMEN Soho-square.—Operations, 9½ A.M.
ROYAL FREE HOSPITAL.—Operations, 9 A.M. and 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

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In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can only be forwarded as book packets, and *prepaid* as such.

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